

The Only Weekly Mining Paper in the Union and Rhodesia.

TN
1
S13
V.27
M.2
No. 1389
Engineering

THE

South African

MINING JOURNAL

Physical &
Applied Sci.
Serials

AND ENGINEERING RECORD

With which is incorporated "THE SOUTH AFRICAN MINES, COMMERCE AND INDUSTRIES."

ESTABLISHED 1891

PUBLISHED EVERY SATURDAY

VOL. XXVII., PART II. No. 1389.] JOHANNESBURG, TRANSVAAL, SATURDAY, MAY 11, 1918. [WEEKLY, PRICE 6D

Century

SINGLE PHASE MOTORS

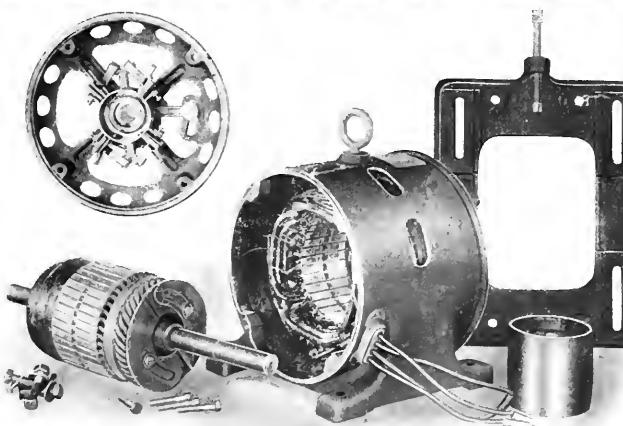
ADVANTAGES :

They are self-starting under full load.

They develop 250 per cent. full load torque with approximately 250 per cent. full load current.

They come up to speed quickly.

They can be started from a distance.



ADVANTAGES :

They are entirely automatic.

They will carry full load continuously.

They can carry 50 per cent. overload momentarily.

They are quiet in operation.

HIGH EFFICIENCY REPULSION-INDUCTION TYPE.

SOLE AGENTS IN SOUTH AFRICA :

HUBERT DAVIES & CO., LTD.

JOHANNESBURG, DURBAN, CAPE TOWN, SALISBURY (Rhodesia) and LONDON.

ROBERT HUDSON & SONS, LTD.,

Representing ROBERT HUDSON, LTD., Gildersome Foundry, near Leeds.

MANUFACTURERS OF

Tramway Material for Mines, Plantations, etc.

U-SHAPE TIP TRUCKS for Underground Use
for Carrying Quartz.

V-SHAPE TIP TRUCKS and
SIDE DISCHARGE TRUCKS
for Surface Work.

STEEL WAGONS for Gold and Diamond Mines.

HOPPER WAGONS from 1 to 40 tons capacity.

STEEL TUBS for Collieries.



A. 387.—Patent V-Shape Double Side Tip Truck (for mining use).

SELF-OILING WHEELS AND AXLES. BEARINGS.

LIGHT LOCOMOTIVES.

STEEL RAILS. ACCESSORIES. STEEL SLEEPERS.
POINTS AND CROSSINGS.

PRICES AND SPECIFICATIONS ON APPLICATION.

BRANCHES AT DURBAN AND DELAGOA BAY.

STOCKS HELD AT
JOHANNESBURG, DURBAN, DELAGOA BAY, BEIRA, SALISBURY, ETC.

Rhodesian Agents:—P. PEECH & CO., Salisbury, Rhodesia.

PHONE 1731. P.O. BOX 5744. Tel. Add. : "RALETRUX."

HEAD OFFICES: 81, 82, 83, 84, Cullinan Building, Johannesburg.



TRADE
JENKINS
MARK

Diamond Trade Mark
the positive means of identifying
Genuine Jenkins Valves

OBtainable only from

C. WHARTON HOOD & CO. (S.A.), Ltd.

P.O. Box 6096.

Phone 973.

Offices: SOUTHERN LIFE BUILDINGS,
HARRISON STREET, JOHANNESBURG.

PROFESSIONAL DIRECTORY.

LITTLEJOHN & WHITBY,
ASSAYERS TO THE
AFRICAN BANKING CORPORATION,
NATIONAL AND NATAL BANKS.

CONSULTING ANALYTICAL
CHEMISTS AND METALLURGISTS.

P.O. Box 849. Phone 1833.

Office and Laboratories:

4, SIMMONDS STREET, JOHANNESBURG.

Assays and analysis of all Minerals, Drugs, Foods, Water, Milk, Oils, etc., undertaken.

Experiments conducted. Reports made as to the treatment of any class of Ore.

PATENTS AND TRADE MARKS.

D. M. KISCH & CO.,
(C. H. M. KISCH—A. L. SPOOR).

ESTABLISHED 1874.

Members Chartered Inst. of Patent Agents, London.

COLONIAL AND FOREIGN PATENT AGENTS.

The Firm undertake the Patenting of Inventions, and the Registration of Trade Marks throughout the world; the Preparation, Revision or Amendment of Specifications and Drawings; reporting on Validity and Infringements; obtaining copies of Specifications and Drawings of Patents granted; Searches through the Patent Office Records; the conduct of Oppositions, and all other matters relating to Patents and Trade Marks.

No. 16 to 18a, NATIONAL MUTUAL BUILDING,
Corner of Rieck and Market Streets.

P.O. Box 668. Telephone No. 774.

J. GOULDIE, C. & M.E., M.I.M.E.,
CONSULTING ENGINEER.

*Late Manager to the De Beers and other Diamond Mines.
30 years practical experience in Diamond, Gold, Coal, and
Metalliferous Mining in South Africa, and holder of Mine
Manager's Certificate (First Class).*

Mines and Mineral Propositions Inspected and
Reported Upon.

Office: 62, Standard Bank Chambers, Commissioner St.,
JOHANNESBURG.

Phone 2225. Telegraphic Address: "Edoug, Johannesburg."

Code: Imperial Combination and A.B.C. (5th edition).

Reference: The National Bank of South Africa, Limited, here
and in London.

When communicating with Advertisers

kindly mention the

**SOUTH AFRICAN MINING JOURNAL
AND ENGINEERING RECORD.**

FOR SALE.

200,000 feet New Piping.
20,000 feet Second-hand Piping.
New and Second-hand Steel Plates.
Second-hand Timber and Corrugated Iron.
Engines, Boiler and Pumps.
Zinc Cutting Lathe, Filter Press, Iron and
Wooden Extractor Boxes.

WRITE FOR QUOTATIONS.

A. SONNENBERG & CO., LTD.,
Fox, Polly, Mooi and Main Streets.

Phone 1582. Box 4297.

THE S.A. MINING YEAR BOOK

1917—18.

By S. E. POTTER.

The Standard Reference Work on South African Mines.

NEW EDITION NOW READY.

Price 15/- net. Post free 17/6. 500 pp. In Cr. Folio, Cloth, Gilt Letters.
Obtainable from the Office of this Paper.

A Recognised Indispensable Work of Reference
For Mining Investors, Mining Engineers, Mine Managers, Bankers,
Stockbrokers, Solicitors or anyone interested in the Mining Industry.

A RECORD OF INFORMATION concerning Mining Companies
operating in all parts of South Africa, Gold, Diamond, Copper, Tin
and other Mines, Collieries, Exploration, and Mining Investment
Companies. Date twelve months ahead of those in other works of
reference.

SOME PRESS OPINIONS.

"A complete account of the present position and future prospects of South African
Mines...an permanent record for ready reference."—The Star.
"The only authoritative work of reference on South African mining companies pre-
duced in this country."—Rand Daily Mail.

"To holders of Kafir shares and prospective investors this is an accurate and
authoritative information that has a distinct value."—Financial News.

Galls:
MANCHESTER
WIDNES."

McKECHNIE BROTHERS, LIMITED.

SMELTING WORKS: WIDNES, ENGLAND.

BIRMINGHAM, NEWCASTLE, MANCHESTER, LEEDS AND BRISTOL.

BUYERS OF

COMPLEX ORES

Which contain COPPER.

COPPER-TIN ORES. COPPER-LEAD ORES. COPPER-ZINC ORES.
RESIDUES. MATTES. CONCENTRATES. PRECIPITATES.

Engineering Works and Foundries.

ESTABLISHED 1888.

Wright, Boag & Co. LIMITED.

ENGINEERS AND FOUNDERS.

Offices: Frederick Street,

Works: Marshall's & City and Suburban Townships.

Telephone: 1066 and 1067.

P.O. Box
545.Tel. Add.:
"SWIVEL."

JOHANNESBURG.



Austral
Iron
Works.

ENGINEERS AND FOUNDERS.

Special Metal for
wearing plates for
Tube Mills and
Centrifugal Pumps.

Machine Cut Gears in Raw Hide or any Metal a
Specialty.

And in Cast Iron up to 18 feet diameter.

Sole Agents and Manufacturers of Tregaskis'
Drill Heating Furnace.

E.W. TARRY & Co., LTD.

Anderson and End Streets,

JOHANNESBURG,

Phone 149.

Box 1098.

Tel. Add.: Austral."

P.O. Box 3960.

Telephone No. 877

W. H. BATTEN (Late BATTEN & EDGAR)

The RAND BOILER, TANK, :: and IRON WORKS. ::

Trucks, Steel Cyanide Tanks, Chimneys, Cones, Skips, and all
Mining Plate Work a speciality.

Office and Works: Albert, Gold, Durban and
Nugget Streets, City and Suburban.

P.O. Box 11, Denver.

Phone 154, Central.

DENVER ENGINEERING WORKS.

Chisholm Stevenson & Co., Ltd.

Main Reef Road, Denver.

ENGINEERS, BLACKSMITHS,
IRON & BRASS FOUNDERS.

Makers of Haulage Gears, Tanks, Trucks, Cones, Cages,
and Mining Machinery of all descriptions.

ENQUIRIES INVITED.

ESTIMATES GIVEN.

STEWART, SANDERS & Co., Ltd.

Manufacturers of all kinds of

BOLTS, NUTS & RIVETS, SKIPRAIL CLIPS,
CLUTCH BOLTS, FANG NUTS, &c.

Importers of Bar Iron and Steel.

Equipment of the Latest Pattern. Work of the Best.

Works—Corner End & President Streets, Johannesburg.

Offices—205, President Street E.

Phone 6143 Central. Box 4422. Telegrams: "Nutanbolt."

ORDER ONLY THROUGH MOSENTHAL BROS., LIMITED.

SUPPORT SOUTH AFRICAN INDUSTRY.

THE SOUTH AFRICAN MINING JOURNAL AND ENGINEERING RECORD.

The Only Weekly Mining Paper in the Union and Rhodesia.

ACETYLENE LAMPS.

“LUX” Hand Lamps

AND

ARE
THE

“EXPRESS” Bucket Lamps

BEST
SAFEST
STRONGEST

“SAFETY FIRST” CARBIDE HOLDERS to hold 1lb., 3lb., 6lb., 7lb. CARBIDE.

— AGENT : —

HERBERT AINSWORTH,
304 - 307. (Third Floor), THE CORNER HOUSE.
JOHANNESBURG.

Telephones : 356 & 1308.

Telegrams : “AINSCO.”

P.O. Boxes 1553 & 1871.

Works Phone
2484.

CHRISTOPHER & SHILLITO, Ltd.

P.O. Box
1082.

ENGINEERS AND IRON FOUNDERS.

C/o Miller and Eighth Streets.

New Doornfontein. **JOHANNESBURG.**

SPECIALITIES.—Steelwork, Castings, Trucks Coal Tubs, Forgings, Tanks, Pump Spares, Mill Spares, Shoes and Dies (Old Park Forge, Sheffield, England).

THE SOUTH AFRICAN
Mining Journal
AND ENGINEERING RECORD.
WITH WHICH IS INCORPORATED
South African Mines, Commerce and Industries.
ESTABLISHED 1891.

VOL. XXVII., PART II.] MAY 11, 1918. [No. 1389.

HEAD OFFICE: 176-180, Stock Exchange Buildings, Fox Street (2nd Floor), Johannesburg, Union of South Africa.

Telephone 913. P.O. Boxes 963 and 4573.

Cable and Telegraphic Address: "MINING JOURNAL."

AGENTS FOR GREAT BRITAIN AND AMERICA: Argus South African Newspapers, Ltd., Byron House, 82-85, Fleet Street, London, E.C.

ANNUAL SUBSCRIPTION RATES: Overseas, £2; Union of South Africa and Rhodesia, £1 10s.; Local Delivery (Town only), £1 6s.

Copies of this journal are obtainable at all Branches and Agencies of the Central News Agency, Ltd., at all News Agents and Railway Bookstalls throughout South Africa, and at the London Agency as above.

NOTICE.—The postage of this issue of the *S.A. Mining Journal and Engineering Record* is: South Africa, 1d. All other parts, 1½d.

CONTENTS.

PAGE

Notes and News	25
Topics of the Week:	
New Mining Legislation	27
" T.C.L. " Mining and Prospecting: A Year's Result	28
Progress of " Goldfields " Mines	29
The April Gold Output: Group Returns	30
City and Suburban Consulting Engineer's Report	33
The New Heriot Consulting Engineer's Report	35
The Week in the Sharemarket	37
The Week in the Mining Material and Engineering Trades	39
Company Meetings: Messina (Transvaal) Development Co.; South African Mining Syndicate; Tweefontein Colliery; The Hume Pipe Co.	44

Notes and News.

The Concrete Construction Company, Ltd., has decided to sell its assets to the Hume Pipe Company, Ltd., for 10,000 fully paid shares and the Concrete in the latter company, and the Concrete Construction Co. Company will then go into voluntary liquidation. Such is the purport of the official notice issued this week, and special meetings of shareholders are called to confirm the provisional arrangements made by the directors of the Concrete Construction Company. Last week we quoted from the speech made by Sir Percy Fitzpatrick at the annual meeting of the Hume Pipe Company, and in this issue we give a fuller report of his remarks on that occasion, from which it will be seen that the Hume Pipe has come to stay.

* * * * *

A two-day strike occurred on the Randfontein Central property this week, and work was suspended on Wednesday and Thursday. On the latter day the Board of Reference sat at the Chamber of Mines, and took evidence

from both sides in regard to the questions at issue. As a result of the meeting of the Board of Reference, a satisfactory arrangement was reached, in regard to the pay of the drill-sharpener, Ackermann, and the position of Mr. Mather—the main points in dispute. The Board, which consists of representatives of the Chamber of Mines and the employees, recommended that Ackermann should get 22s. 6d. per shift from date. The Board in its finding recognised that Mr. Mather acted in a tactless manner, and it also attributed a certain amount of blame to the Union and the management of the mine. The Board recommended that a change in the system of control should be immediately brought about, whereby the present effective control of drill-sharpening by Mr. Mather should become in fact an effective control by the sectional management. The Board further recommended that, pending the complete report, the men should return to work on the understanding that the demand for Mr. Mather's dismissal be temporarily withdrawn. At a very largely attended meeting at Krugersdorp on Thursday, when the terms were considered, the decisions of the Board were accepted, and the men returned to work yesterday. It would appear that a full enquiry is desirable into these displays of continual friction between the management and the men at Randfontein—a friction that seems to be an unfortunate legacy from the past.

* * * * *

The production from the cyanide and mill was 9,996 634 ozs., equal to 6,991 dwts. per ton milled, during the first quarter of the year at **New Heriot** during the first quarter of the year at **Quarterly Report.** The New Heriot. The expenditure amounted to £45,411 10s. 9d. and the revenue £41,266 12s. 4d., leaving a loss for the quarter of £4,144 18s. 5d. The loss sustained was owing to the interruption of mining operations by the partial flooding of the mine due to the excessive rains which fell in the Johannesburg area in February. The mine is now practically free of water, and normal operations were resumed on 3rd April.

* * * * *

At the City and Suburban for the first quarter of the year, the total yield from the mill was **City and Suburban** 18,538 488 ozs., equal to 5,615 dwts. per **Quarterly Report.** ton milled, and from the cyanide 7,893 399 ozs., equal to 2,398 dwts. The revenue amounted to £109,882 4s. 11d., and the expenditure £87,938 17s. 1d., leaving a profit of £21,943 7s. 10d. for the quarter. The capital expenditure amounted to £112 15s. 6d. Shortage of native labour and an excessive influx of water into the mine, due to the enormously heavy rains which fell in the Johannesburg area in February, account for the decrease in tonnage milled and in working profit. The average native labour force was 409 less than for the previous quarter, and is considerably below the requirements of the mine.

The report of the directors of the Village Deep for the quarter ending 31st March, 1918, shows that development work done was: Total footage, 5,475 ft.; total footage sampled on reef, 3,546 ft. The payable reef disclosures were as follows: Main Reef Leader, 1,643 ft., width 26 inches, assay value 20·8 dwts.; South Reef, 60 ft.; width 25 inches, assay value 17·2 dwts. The profit realised for the quarter was seriously reduced owing to the difficulties experienced in coping with the abnormal quantities of water flowing into the mine. The pumping plant was run to its utmost capacity, and in addition constant bailing was necessary. As a result the tonnage output and grade of ore mined both showed heavy reductions, and working costs increased to an unusually high figure. The water difficulties are now much less, and normal results are anticipated for the current period. The character of the reef disclosures was good, but the percentage of payability continued to be lower than usual. The eighteenth ordinary general meeting of shareholders will be held in the Board Room, the Corner House, Johannesburg, on Tuesday, 25th June, 1918, at 2.30 p.m.

Village Deep Results.

* * * * *

The report of the directors of the Crown Mines for the quarter ending 31st March, 1918, states that the total footage done was 6,694 ft.; total footage sampled on reef, 3,320 ft. The payable reef disclosures were as follows: Main Reef Leader, 1,700 ft., width 26 inches, assay value 22·2 dwts.; South Reef, 590 ft., width 30 inches, assay value 18·4 dwts. During the heavy rainfalls which occurred throughout the quarter enormous quantities of water flowed into the mine. Apart from driving the pumping plant to its utmost limit, constant bailing was necessary, at the expense of hoisting ore. 360,000,000 gallons of water, equal to 1,822,000 tons, were pumped and hauled out of the mine during the quarter. On this account the tonnage output (511,688 tons) was lower than for the preceding quarter. Working costs increased 1s. 5d. per ton milled, and the profit was £29,833 less. The reef disclosures from the Main Reef Leader development were particularly satisfactory. The 19th level crosscut was successfully connected with No. 14 shaft. A new circular shaft, No. 15, to deal with the large unexploited area south of the main dyke, and commanding the western part of the mine, has been started and sunk 65 feet. Sinking has been stopped whilst the surface arrangements are being completed. The labour force at the end of the quarter was 13,290, as compared with 11,897 at the end of the preceding quarter. The 22nd ordinary general meeting of shareholders will be held in the Board Room, the Corner House, Johannesburg, on Friday, 21st June, 1918, at 10.30 a.m.

Crown Mines Progress.

* * * * *

The statutory report of the directors of the New State Areas shows that the total number of shares allotted is 1,500,000 shares of £1 each, representing the whole of the initial capital of the company. All the shares so allotted have been allotted on the footing that they are to be paid up in cash. 300,000 of such shares were paid up in full and 1,200,000 were paid up to the extent of 2s. per share, the balance of 18s. being payable at such times as the directors may decide, but in any case as and when required by the company. This balance of 18s. per share has since been called up in respect of 8,000 shares. The total amount of cash received by the company in respect of the said 1,500,000 shares is £427,200. The following is an abstract of the receipts of the company on account of its capital and of the payments made thereout, made up to a date within seven days of the date of this report, i.e., the 30th day of April, 1918:—Receipts: Subscribers' shares—300,000 shares of £1 each subscribed at par in terms of mineral lease dated 8th February, 1918, £300,000; 1,200,000 shares of £1 each subscribed at par, and on which 2s. per share was paid up in terms of said mineral lease, £120,000; balance of 18s. per share paid up on 8,000 shares forming portion of above-mentioned 1,200,000 shares, £7,200; total, £427,200. Expenditure: Guarantors' commission, £75,000; preliminary expenses, £5,011 0s. 6d.; claim licences, £1,758 12s.; head office expenses, £395 19s. 5d.; engineering and

survey fees and expenses, £287 12s. 9d.; machinery, stores, etc., purchased, £11,482 10s. 7d.; total expenditure, £93,935 15s. 3d.; balance unspent, represented by fixed deposits at bankers, £330,000; African Banking Corporation, Ltd., current account, £8,264 4s. 9d.; total, £427,200.

* * * * *

The report of the directors of the Modder East for the quarter ending 31st March, 1918, states that in No. 1 shaft section the main haulage drive north was advanced a fur-

ther 967 feet. A parallel ventilation drive was commenced and driven 342 feet. The main incline shaft was re-started and sunk 111 feet. The shaft is in quartzite, and is being steepened to intersect the reef. A winze was started below the 20th level, advancing 219 feet, exposing 17 inches of reef assaying 26·8 dwts. The 20th level was re-started, and made 227 feet of progress. Of this distance, 90 feet disclosed an average of 11 inches of reef assaying 57·7 dwts., the balance being in dyke. The total footage in this section amounted to 2,023 feet, of which 300 feet disclosed reef averaging 15 inches, at 83·6 dwts. The programme of electrification made satisfactory progress. Construction work covered the following items: Sundry workshops and storerooms, excavations for a cooling dam, foundation for an additional air compressor, etc. No. 2 shaft section has been sunk a further 152 feet, to a depth of 369 feet; whilst walling was completed to a depth of 235 feet. At a depth of 313 feet a pump chamber and sump have been excavated. The bottom of this shaft is now in dolomite. No. 3 shaft section was sunk a further 100 feet, to a total depth of 280 feet, and walling has been completed to a depth of 238 feet. This shaft continued in soft dyke, which is here much thicker than at No. 2 shaft. Progress has been slow, on account of the care and caution required in passing through this difficult formation. Twenty-four married and some single quarters have been completed, also an addition of 10 rooms and other offices to the native compound. The average white labour force for the quarter was 143. The average number of natives in service was 725. The second level east Modderfontein B. was driven according to agreement into this company's property for a distance of 253 feet. Of this, 180 feet disclosed reef averaging 29 inches in width, assaying 6·3 dwts. The drive encountered one of the large faults known to occur in this vicinity, and crosscutting is now taking place to pick up the reef again.

* * * * *

The board of directors of the Lace Proprietary Mines, Ltd., have approved of an offer made on behalf of the principals through a leading local firm of solicitors for the reconstruction of

Lace Props: Proposed Reconstruction. Lace Proprietary Mines, Ltd., on the following terms and conditions:—The present authorised capital of the company is £300,000 in £1 shares, of which £255,000 are issued and £45,000 held in reserve. The capital will be reduced to £127,500 by cancelling the 45,000 reserve shares, and giving to the shareholders one share for every two shares now held by them. The capital will then be increased to £255,000, and the directors will be given power to further increase the capital up to £1,500,000. The position will then be as follows: Reduced capital, £127,500. Shareholders will have the right to subscribe, for a period of three months from the date of the confirmatory meeting, for 127,500 shares at par, £127,500. Shareholders will have the right to subscribe for a period of twelve months from the date of the confirmatory meeting for 127,500 at 22s. 6d. per share, £127,500. The subscription of the above two issues is guaranteed. In consideration of the guarantee the guarantors will have the following rights: For a period of three and a half years from the date of the confirmatory meeting, to subscribe for a further issue of 510,000 shares at 22s. 6d. per share, £510,000; for a period of five and a half years from the date of the confirmatory meeting, to subscribe for a further issue of 607,500 shares at 27s. 6d. per share, £607,500; which will make the company's total capital £1,500,000. The necessary shareholders' meetings to consider the proposal and, if approved of, to confer the necessary powers on the directors to accept and carry it into effect will be called in due course.

TOPICS OF THE WEEK.

NEW MINING LEGISLATION.

THE two important bills dealing with the mining industry, which were debated in the Assembly during its closing days this week, suffered different fates. Owing to the eagerness of some members to get to their homes and to Nationalist opposition, the Public Welfare and Moratorium Act Further Amendment Bill was thrown out on the last day of the session, and its debatable provisions in regard to, *inter alia*, labour, explosives and supplies for the mining industry therefore need hardly be discussed. The most noteworthy feature, it may be mentioned however, was a provision "to control and regulate during the period aforesaid the extent of the development work which may be carried on on any mines (as defined by Act No. 12 of 1911), the distribution and use on or in connection with any such mines of explosives and mine stores, and the distribution and allocation of native labourers working on any such mines, and to control and regulate any such matters in relation to the maintenance of any industry essential to the public welfare." Strenuous opposition appears to have been offered to this clause by Sir David Harris on behalf of the diamond mines, and he, at any rate, will rejoice at the fate of the Bill. The whole question of the low-grade mines remains, therefore, as before. A better ending was in store for the Mining Leases Bill which, after a protracted debate, was passed in an amended form by the Assembly and, unaltered, by the Senate. A draft of the Bill in its final form has not yet reached us, but a perusal of the debate as reported in the *Cape Times* brings out several points of interest. As we anticipated last week, the penal clause dealing with company directors and employees who made use of advance information for sharemarket purposes was deleted, and the clause imposing additional taxation in mining leases for Provincial purposes was found to be *ultra vires*. The clause dealing with the formation of a Mining Leases Board met with some opposition, and the Minister, in defending it, said the objections to this clause seemed to be that it was hasty legislation, and that it would be a Board of State officials. In reply to both those arguments he pointed out that what was proposed in clause one was nothing new—it was not a new proposal sprung upon the House and the country. It had been in operation since 1910, and six large contracts, involving millions of pounds, had already been given out on the advice of the Advisory Board, exactly as constituted here. Suppose, he asked, this clause was deleted, did the House think the Government ought to enter into these contracts without the advice of a Board? Then they could not go outside the Service for members of the Board, and the next best thing was to get four men in regard to whom they had the assurance that they were not connected with any party who might tender. If they got a man whose advice might be tainted the whole of the Board might be undermined. He agreed that this was by no means a vital clause of this Bill. If it were struck out it would still leave the Government the right of appointing an Advisory Committee, but he thought it was better when they dealt with large assets to have a Board which would report to Parliament, and would be responsible under the Act to the Government and Parliament. The clause was, in the end, allowed to stand. In regard to certain companies in which there were enemy shareholders, Mr. Creswell moved that before any company could obtain a mining lease it should get rid of its enemy shareholders. In reply, Mr. Malan said he was sorry he could not accept the amendment for the simple reason that if a company were registered in the Union or in London, it was not an enemy company, although it might have shareholders who were not British subjects. The right thing to do under these circumstances was either to vest the interests of enemy shareholders in the public trustee or to dispose of their shares. As a general rule, the Union Government's policy had been to keep control of any dividends paid on account of enemy shares, and where it was found necessary to wind up a business which had enemy interests in it that had been done. Moreover, if they took up this attitude, they would seriously restrict competition, and they might

not be able to get satisfactory tenders during the war. The number of companies which could tender for big undertakings of this kind was not large, and if they were going further to restrict them they might have to sell public assets at a price at which it was undesirable to sell. According to the *Cape Times* report, Mr. Malan continued:

He would like to make clear what the attitude of the Imperial Government was in a matter of this kind. They had a specific instance. When the Springs area was under consideration and the Mines Selection Company was one of the tenderers, the Union Government had communications with the Imperial Government. They knew that about 20 per cent. of the shares in that company belonged to enemies. He sent a confidential telegram to the Custodian of Enemy Property, in which he said that the Courts had held that in cases where companies carried on business in South Africa but were registered in London, and in which enemies held shares, this country had not jurisdiction to vest such shares. The case in point was the Consolidated Mines, with a capital of £532,500, of which 106,000 shares belonged to enemies. In this telegram the Custodian was requested to ascertain whether the Imperial Government intended to vest the enemy interest in this and other similar concerns. This telegram was sent on February 21, and the Imperial Government replied on February 28, stating that the Board of Trade pointed out that where the enemy holding was less than one-quarter of the shares, it would not in usual practice be vested there for sale, but if the Union Government considered it expedient in the case of the Consolidated Mines Selection Co., that the enemy shares should be vested for sale by the Board of Trade, it would at once take steps to vest them accordingly. Mr. Malan went on to say that the position of the Imperial Government in this matter was, that unless more than 25 per cent. were enemy holding, they did not interfere. They took control as the Union Government took control here, but they did not sell. In the case in point, as only about 20 per cent. was vested in the enemy, he felt that the case was not a very strong one, but in view of representations which had been made, a telegram was sent on April 29 stating that, in view of the Government's policy in connection with the mines being merely to vest enemy interest, the Government felt that they were unable to ask the Imperial Government to vest in this case, unless the British shareholders of the company desired such actions to be taken. He had information that the British shareholders were prepared to agree to this course. It seemed to him that the House in a matter of this kind could very well follow the lead of the Imperial Government. He did not see why they should go the length of this motion and say that, because one out of a million shares was enemy holding, the whole contract was invalid. Why he had said that under the proposed clause competition would be restricted was because they would exclude a possible tenderer merely because a small percentage of the shares were enemy holding. The enemy influence in regard to mining was as nothing compared with the insidious influence that went on all over the country in other directions.

We have quoted the foregoing in full because it explains the attitude of the Government in regard to a question that has been much discussed on the Rand, and because it answers many questions that have been put regarding that attitude. With the Bill in its final form we hope to deal more fully when the revised draft reaches us.

Official details are now to hand of the scheme for the sale of the Erith Works of Fraser & Chalmers to the General Electric Company. The sale will include the goodwill of the manufacturing business, including the construction of turbines, dry gas cleaning plant, and plant for the storage and handling of coal and ores. Fraser & Chalmers will retain the goodwill of its business in mining, milling, and metallurgical machinery, with manufacturing rights in respect thereof, and also its large manufacturing business in South Africa and elsewhere, and its agencies for British and American manufacturers. The exact amount of the consideration for the sale, which is payable in cash, cannot yet be ascertained, as it depends upon inventories in progress, which will be taken on the 31st inst.—the date of the transfer. The purchase price will include a large sum for the goodwill, patterns, and drawings of the general manufacturing business, in respect of which no value has hitherto appeared in the accounts; and the sale will accordingly increase the surplus of the company to a material extent. It has been arranged with the purchasers that they will complete for the account of this company all orders now in hand for mining machinery, and negotiations are also in progress for the execution of new orders for mining machinery on terms to be agreed. The business which remains with the company will be of a simple and more liquid character than in the past.

"T.C.L." MINING AND PROSPECTING: A YEAR'S RESULTS.

Points from the Report of the Consulting Engineer.

In his report for 1917, Mr. J. J. Garrard, the Consulting Engineer to the Transvaal Consolidated Lands and Exploration Company, Ltd., writes:—Groenfontein Tin Mine: Total footage, 2,779 ft.; total tonnage mined, 9,256 tons. The plant ran 175 days of 24 hours, from 1st May to 31st December, crushing 3,958 tons of ore and retreating 2,657 tons of accumulated residues, producing 157.64 short tons of 70.88 per cent. tin concentrate. 13.1 short tons of 72 per cent. concentrate were produced during the year from alluvial workings on the property. The year's operations showed a profit of £6,205, as compared with £8,103 for the previous year, but the concentrates realised £33 per ton more than in 1916 owing to the increased price of metal. A large amount of prospecting work was carried out on the Roodepoort section during the year. A big tourmaline pipe showing traces of tin was followed, which at one time showed 80 square feet of high grade ore. This tin eventually gave out, and work was stopped in November when labour became scarce, but as the pipe is still strongly defined, work will be resumed here later. The most productive working during the year has been No. 23 on the Groenfontein section, the occurrence being of the nature of a pegmatite vein underlying the main pegmatite belt. The ore bodies at this working improved considerably towards the end of the year, and it is interesting to note that this improvement has taken place at a greater depth below the horizon of the main pegmatite outcrop than in the case of any other working on the mine. This important ore body was discovered after following a few isolated crystals of cassiterite in a soft seam, and emphasises the absolute importance of following up the merest indications of tin, which, of course, implies a considerable amount of dead work being required. Mutue Fides Tin Mine: Total footage, 1,965 ft.; total tonnage mined, 6,464 tons. Ore reserve at grass 31st December, 1917, 1,850 tons containing 123.7 tons concentrates. The plant ran 97.6 days of 24 hours, crushing 3,719 tons of ore, producing 192.64 short tons of 67.7 per cent. tin concentrate. The year's operations showed a profit of £8,639 as compared with a profit of £12,305 in 1916. The mill ran on accumulated ore reserve from 1st January to 30th April, when the water supply became limited. Milling recommenced on 1st December. The bulk of the ore now produced from this mine is highly pyritic, and it has been necessary to make certain minor additions to the plant to deal with this class of ore. A large amount of prospecting work was carried out during the year, which resulted in the location of one promising ore body associated with a well-defined fissure. Mining was chiefly confined to the F. 2 fissured zone and the No. 1 main workings. In the latter, a small eye of pyritic ore at the bottom of the main incline shaft was followed in a vertical winze. This opened out into a very large occurrence of high grade ore, but containing an unusually large percentage of iron, arsenical and copper pyrites. 80 per cent. of the concentrate produced during the year has been mined from this occurrence. Applications have recently been received for prospecting rights over several of the company's farms.

MINING INTERESTS HELD BY THE COMPANY.

Penge, No. 780, District Lydenburg: The tributors exported some 2,608 tons of asbestos during the year. Abnormal rains towards the end of the year considerably interfered with the transport from the mine to the railway. Mampaknul, No. 225, District Zoutpansberg: A tributing agreement was entered into in respect of corundum on this farm during the year, some 50 tons having been shipped, and £66 paid in royalty. Roodepoort Tributing Lease: This lease to the Zaaiplaats Tin Mining Company expired at the end of the year, and has not been renewed. No ore was received from this lease during the year. Mutue Fides and Tygerpad Tributing Area: The tributors report having crushed 809 tons of ore, yielding 25.1 tons of tin concentrates during the year. No revenue has yet been received by the

company from this source. Zaaiplaats Valley Alluvial: An option to purchase the freehold of alluvial tin bearing ground on the farms Groenfontein and Roodepoort, adjoining the Zaaiplaats Tin Mining Company's ground, has been granted to the Zaaiplaats Tin Mining Company, Ltd., but the excessive rainfall has seriously interfered with that company's work in testing the ground. Swaziland Tin, Ltd.: 435.65 long tons of concentrates were produced from 1,029,137 cubic yards of ground during the year ended 31st December, 1917. The estimated profit was £30,754 as against £18,042 for the previous year, being equivalent to 37.5 per cent. and 22 per cent. on the capital of the company respectively. Dividends equivalent to 25 per cent. were declared on the results for 1917. Fairview (T.C.L.), Ltd.: A tributing agreement was entered into during the year, and the tributors started milling on 12th August. 7,502 tons have been crushed, from which 1,587 fine ozs. of gold were recovered. £236 8s. have been received in royalty from the tributors, but owing to their difficulty in obtaining satisfactory results from the flotation process, the company agreed to remit the royalty for the last three months of the year. It is doubtful whether the tributors will be able to continue. Rietfontein, No. 1228, District Lydenburg: A tributing agreement was entered into in respect of this mine during the year, and development was commenced by the tributors in October. Some 1,200 ft. of development had been done at the end of the year, and some 2,000 tons of 16-dwt. ore dumped at grass. Holfontein: Boring operations have been carried on continuously during the year. No. 1 borehole encountered a dyke between 723 and 802 ft., embracing the horizon at which the reef was expected. No. 2 borehole encountered the reef one inch in thickness, assaying about 7 dwt. at a depth of 813 ft. No. 3 borehole at date is down 1,020 ft. in quartzite. No. 4 borehole at date is down 510 ft. in quartzite.

New Heriot.

The New Heriot returns for last month are as follow: Tons milled, 12,200; gold recovered, 3,988 ozs.; profit, £1,014. The quarterly report shows a loss of £4,144 owing to the interruption of mining operations occasioned by the partial flooding of the mine due to the excessive rains which fell in the Johannesburg area in February. The mine is now practically free of water and normal operations were resumed on April 3.

South African Mining Syndicate.

The report of the South African Mining Syndicate—a London venture—for the period from 17th April, 1916, to 28th February last states that there is a substantial provision for working capital, which, however, does not become payable until after the war. This fact and other difficulties have until now prevented active development, but the promising outlook in connection with the company's tin property located at what is known as the Transvaal tin belt and the present exceptional scarcity and high price of that metal has induced certain shareholders to provide at once the funds necessary to carry on active development.

S.A.R. New Works Authorised in March.

Prince Albert Road: Improvements to water supply and alterations to track. Nelspruit-Graskop Line: Re-sleepering of line between 5 and 44 miles. Touwa River: Provision of additional siding accommodation, new goods shed and platform. Braamfontein: Alterations and additions to tracks. Potchefstroom: Provision of new station building. Maritzburg: Acquisition of buildings, etc., from Indian Immigration Trust Board for conversion into quarters for the staff. Table Bay Harbour: Provision of electric sub-station at Customs Gate in connection with extra accommodation at Patent slipway now being provided.

PROGRESS ON "GOLDFIELDS" MINES.

Summary and Review of Operations During Last Quarter.

SIMMER AND JACK.

THE following is a summary of the operations of this company for the quarter ended 31st March, 1918:—The development footage accomplished during the quarter amounted to 1,813 feet, the footage sampled being as follows: Main Reef, footage sampled 469, reef width 27 inches, reef valued 7·0 dwts.; Main Reef Leader, footage sampled 61, reef width 23 inches, reef value 12·9 dwts.; South Reef, footage sampled 136, reef width 33 inches, reef value 11·9 dwts. Tons milled, 157,000. Working profit (including sundry revenue), £53,021, less, however, £9,003 appropriated during the quarter in respect of special expenditure due to war, contributions to Miners' Phthisis Compensation Fund, additions and renewals fund, Government taxation, etc.; gold in reserve, £13,750. During the quarter operations were greatly interfered with owing to excessive quantities of water in the underground workings due to abnormal rainfall. Consequently the tonnage and working costs suffered, which with shortage of native labour and other disabilities seriously affected the profits. The water position is better. Owing to paper shortage the directors have decided to discontinue the issue of quarterly reports to shareholders during the period of the war, but short particulars will be published in the press from time to time.

ROBINSON DEEP.

The following is a summary of the operations of this company for the quarter ended 31st March, 1918:—The development footage accomplished during the quarter amounted to 2,117 feet, the footage sampled being as follows: Main Reef, footage sampled 373, reef width 27 inches, reef value 2·2 dwts.; Main Reef Leader, footage sampled 224, reef width 21 inches, reef value 14·4 dwts.; South Reef, footage sampled 224, reef width 29 inches, reef value 13·2 dwts.; tons milled, 138,200; working profit (including sundry revenue), £26,479, less, however, £7,282 appropriated during the quarter in respect of special expenditure due to war, contributions to Miners' Phthisis Compensation Fund, Government taxation, etc., including also interest on joint loan from the guarantors; gold in reserve, nil. During the quarter operations were greatly interfered with owing to excessive quantities of water in the underground workings due to the abnormal rainfall. Consequently the tonnage and working costs suffered, which with shortage of native labour and other disabilities seriously affected profits. The water position is better.

SIMMER DEEP.

The following is a summary of the operations of this company for the quarter ended 31st March, 1918:—The development footage accomplished during the quarter amounted to 1,898 feet, the footage sampled being as follows: Main Reef, footage sampled 802, reef width 34 inches, reef value 10·3 dwts.; Main Reef Leader, footage sampled 90, reef width 19 inches, reef value 9·6 dwts.; South Reef, footage sampled 297, reef width 44 inches, reef value 6·4 dwts.; tons milled, 124,900; working loss (including sundry revenue), £9,024; appropriations during the quarter in respect of special expenditure due to war, contributions to Miners' Phthisis Compensation Fund, additions and renewals fund, Government taxation, interest on debentures, debenture guarantors' remuneration, debenture trustees' fees, etc., amounted to £16,780; gold in reserve, nil. During the quarter operations were greatly interfered with owing to excessive quantities of water in the underground workings due to abnormal rainfall. Consequently the tonnage and working costs suffered, which with shortage of native labour and other disabilities seriously affected the profits. The water position is better.

SIMMER AND JACK.

JUPITER.

The following is a summary of the operations of this company for the quarter ended 31st March, 1918:—The development footage accomplished during the quarter amounted to 2,076 feet, the footage sampled being as follows: Main Reef, footage sampled 786, reef width 34 inches, reef value 7·1 dwts.; Main Reef Leader, footage sampled 285, reef width 36 inches, reef value 6·2 dwts.; South Reef, footage sampled 604; reef width 27 inches, reef value 6·5 dwts.; tons milled, 65,400; working profit (including sundry revenue), £9,960; appropriations during the quarter in respect of special expenditure due to war, contributions to Miners' Phthisis Compensation Fund, additions and renewals fund, Government taxation, etc., amounted to £2,131; gold in reserve, nil. During the quarter operations were greatly interfered with owing to excessive quantities of water in the underground workings due to the abnormal rainfall. Consequently the tonnage and working costs suffered, which with shortage of native labour and other disabilities seriously affected the profits. The water position is better.

SUB NIGEL.

The following is a summary of the operations of this company for the quarter ended 31st March, 1918:—The development footage accomplished during the quarter amounted to 2,548 feet, of which a distance of 1,976 feet was advanced on reef; 1,950 feet were sampled, of which 1,150 feet gave 15·9 dwts. over a stoping width of 42 inches, whilst the average of the balance of footage sampled was not within the pay limit. Tons milled, 28,500; working profit (including sundry revenue), £25,601, less however, £5,778 appropriated during the quarter in respect of special expenditure due to war, contributions to Miners' Phthisis Compensation Fund, additions and renewals fund, Government taxation, etc.; gold in reserve, £12,463. A commencement has been made with the new vertical shaft. A drive from the crosscut on the first level "E" shaft intersected a pay chute of 150 feet, giving 9·9 dwts. over stoping width of 42 inches. Owing to paper shortage the directors have decided to discontinue the issue of quarterly reports to shareholders during the period of the war, but short particulars will be published in the press from time to time.

"Skinner's Mining Manual."

To mining shareholders, directors, and engineers who follow closely the affairs of the undertakings in which they are directly or indirectly interested the correctness of the information contained in the "Mining Manual and Year-Book," and its consequent indispensability as a work of reference, are well known. The 1918 edition, recently published in London, retains its long-established form and features, and, considering the difficulties of the times, the early issue of the book, which runs into 936 pages, is a distinct achievement on the part of the compiler, Mr. Walter R. Skinner, and his associated publishers, the *Financial Times*. The increase in the price is less than might have been expected in the circumstances. The work is brought up to include data from the mines up to 1916; and may be had from, Messrs. Hortor & Co., Ltd., Johannesburg.

EDWARD DODD, 19, LOVEDAY STREET (Opposite Goldfields Hotel).

Agent for W. F. Stanley & Co., London, and Cambridge
Scientific Instrument Co., Cambridge.

Mathematical, Nautical, Scientific and Electrical
Instrument Maker.

Theodolites, Tachometers, Levels, Artificial Horizons, Compasses, Etc. Switchboards, Telephone, Telegraph Instruments, Megs and Meters. Fine Engineering and Small Fees Work Executed. Telephone 3755.

THE APRIL GOLD OUTPUT: GROUP RETURNS.

Central Mining/Rand Mines Group.

The following are the results of crushing operations of the Central Mining/Rand Mines companies for the month of April:—

Company	No. of Stamps	Tube Mills.	Tons crushed.	Total Fine Ozs.	Total	Estimated Profit.	Working Costs per Ton.
Bantjes Cons. ...	90	3	19,170	5,428	16	23/ 6·4	
City Deep ...	154	9	60,000	27,687	48,445	22/11·7	
Cons. Main Reef ...	220	6	55,470	16,968	12,373	21/ 6·0	
Crown Mines ...	660	26	172,000	54,246	45,656	20/11·8	
Dur. Rood. Dp. ...	100	3	26,600	10,018	5,152	27/ 4·7	
East Rand Prop. ...	600	28	118,500	32,641	6,591	21/11·1	
Ferreira Deep ...	280	7	44,700	17,028	20,667	22/ 7·6	
Geldenhuys Dp. ...	300	7	52,500	14,504	2,811	22/ 0·6	
Knight Central ...	120	3	24,500	6,690	300	22/ 5·3	
Modder B. ...	896	6	45,000	24,063	54,562	20/ 4·4	
New Modder ...	236	15	59,500	33,194	71,630	22/ 2·4	
Nourse Mines ...	180	5	42,700	12,866	8,630	23/ 4·3	
Robinson ...	200	6	49,100	10,673	2,747	17/ 1·4	
Ross Deep ...	300	7	52,200	15,002	15,068	18/ 1·5	
Village Main R. ...	130	4	23,600	8,841	10,626	22/ 2·0	
Wolhuter ...	120	4	32,500	9,181	6,566	19/ 5·7	
Village Deep ...	180	7	51,300	16,772	4,083	25/ 7·4	
Wit. Deep ...	205	5	34,700	9,163	159	21/10·4	

Tls. & averages 4171 146 964,040 324,960 309,029 21/ 8·5

^a Includes 4 Nissen stamps. ^b Includes 16 Nissen stamps.

Village Deep.—Recovery continued comparatively low, and there was appreciable abnormal expenditure.

Robinson.—Low profit due to abnormally low yield.

Goerz Group.

Results of operations on the producing mines of this group for the month of April:—

Company	Stampa.	Tons Crushed.	Total Revenue.	Revenue per ton
Geduld Proprietary ...	100	48,000	£61,546	28/ 8
Modder Deep Levels ...	70	42,700	87,359	40/11
Princess Estate ...	60	19,400	26,354	27/ 2
Totals	230	105,100	175,259	—

Company.	Costs.		Profit.	
Company.	Total.	Per Ton.	Total.	Per Ton.
Geduld Proprietary ...	£42,167	19/ 8	£19,379	9/ 0
Modder Deep Levels ...	36,474	17/ 1	50,885	23/10
Princess Estate ...	27,959	28/10	*1,605	—
Totals	£106,600	—	£69,659	—

^a Loss.

Transvaal G.M. Estates.

The following are the particulars of this company's output for the month of April, 1918:—Central Mines: Tons crushed, 10,850; yielding 3,740 fine ozs. Elandsdrift Mine: Tons crushed, 1,530; yielding 981 fine ozs. Vaalhoek Mine: Tons crushed, 1,910; yielding 610 fine ozs. Estimated value of month's output, £21,985; estimated profit for month, £3,415.

Glynn's Lydenburg.

The following are the particulars of this company's output for the month of April, 1918:—Tons crushed, 3,620; yielding 1,650 fine ozs.; estimated value of month's output, £0,865; estimated profit for the month, £1,790.

Barnato Group.

The results of operations of the Barnato group for April are as follows:—

Mine.	Stampa.	Tons Crushed.	Revenue from Gold
Consolidated Langlaagte ...	100	47,000	£55,938
Ginsberg ...	75	13,500	11,370
Glencairn ...	160	18,100	12,988
Government Areas ...	180	110,000	169,915
Langlaagte Estate ...	200	43,450	51,203
New Primrose ...	140	17,300	14,321
New Unified ...	60	12,750	12,137
Randfontein Central ...	600	154,100	171,280
Van Ryn Deep ...	80	40,140	91,793
Witwatersrand ...	215	39,150	45,161

Totals and averages ... 1810 495,490 £636,056

March totals ... 1805 462,010 £603,941

Mine.	Total Working Costs per Ton Milled.	Gross Profit including Sundry Revenue.
Consolidated Langlaagte ...	£41,001	17·447
Ginsberg ...	12,411	18·387
Glencairn ...	12,585	18·906
Government Areas ...	105,111	19·111
Langlaagte Estate ...	41,739	19·213
New Primrose ...	13,918	18·000
New Unified ...	9,528	14·946
Randfontein Central ...	161,925	21·016
Van Ryn Deep ...	42,317	21·085
Witwatersrand ...	35,575	18·174

Totals and averages ... £476,110 19·218 £164,186

March totals ... £471,570 20·414 £136,496

* Loss.

Monthly Gross Profit for 1918.—January, £190,628; February, £159,225; March, £136,496; April, £164,186.

Randfontein Central.—Three sections of mine still affected by recent floods. Position improving.

Consolidated Gold Fields Group.

The following are particulars in regard to the outputs and profits for the month of April of the undermentioned companies of the Consolidated Gold Fields group:—

Company.	No. of Stamps.	Tube Mills.	Tons Crushed.	Gold declared.	Total Profit.
Simmer and Jack ...	320	7	54,700	14,926	£12,456
Robinson Deep ...	110	8	45,000	14,998	7,588
Knights Deep ...	400	11	98,100	16,741	322
Simmer Deep ...	220	10	43,200	10,543	876
Jupiter ...	80	5	20,400	6,525	2,296
Sub Nigel ...	30	2	9,800	5,965	8,304

Totals ... 1160 43 271,200 69,698 £31,837

The sundry revenue included in the above total declared profit is as under: Simmer and Jack, £1,500; Robinson Deep, nil; Knights Deep, £314; Simmer Deep, £352; Jupiter, £415; Sub Nigel, nil; total, £2,581.

Gold Reserve.—Simmer and Jack, 1,700 ozs.; Sub Nigel, 2,991 ozs.; total, 4,691 ozs.

Consolidated Mines Selection Group.

The following are the results of operations for the month of April:—

	Stamps Working.	Tons Milled.	Working Cost per Ton Milled
Brakpan	110	54,400	22/ 6·552
Spring	80	36,920	20/ 9·101
Totals and averages	190	91,320	21/ 9·879
	Value of Gold declared.	Yield per Ton.	Working Profit. per Ton.
Brakpan	£96,393	85/ 5·263	£35,068
Spring	74,417	40/ 3·719	36,097
Tls. and averages	£170,810	37/ 4·909	£71,165
			15/ 7·030

Albu Group.

The April operations of the producing mines of this group were as follows:—

Company.	Stamps.	Tons Crushed.	Total Cost.
Aurora West	80	14,050	£14,819
Meyer and Charlton	75	10,950	14,825
New Goch	80	16,000	15,389
Roodepoort United	80	23,875	27,752
Van Ryn Estate	140	33,500	28,508
West Rand Consolidated	100	35,250	36,254
	555	133,625	£137,547
Company.	Cost per Ton.	Total Revenue.	Profit.
Aurora West	21·10	£16,079	£1,260
Meyer and Charlton	27·08	84,875	20,050
New Goch	19·24	15,680	291
Roodepoort United	23·25	25,249	*2,503
Van Ryn Estate	17·02	35,201	6,693
West Rand Consolidated	20·57	37,204	1,010
		£184,848	£26,801

* Loss.

Aurora West.—It is anticipated that the additional difficulties due to the influx of water will have been surmounted by the end of May.

Meyer and Charlton.—The water troubles are now overcome.

Roodepoort United.—The loss at this mine is due chiefly to the low tonnage crushed and to a fall in grade which may prove temporary.

West Rand Consolidated.—Abnormal pumping operations are still necessary on this property, but the position is improving.

To be seen and obtained from—

W. E. HORTON & CO., Ltd.

HARRISON STREET,
JOHANNESBURG.

NOW READY.

Published March 11, 1918.

Thirty-second Year.

Contains all the latest information up
to within a few days of publication.

THE

MINING MANUAL AND MINING YEAR BOOK 1918

By WALTER R. SKINNER.

The Standard Reference Work on Mines.

Price 25/- net.

1,120 pages. In Demy 8vo, bound in RED Cloth.

A Recognised Indispensable Work of Reference

For MINING INVESTORS, MINING ENGINEERS, MINE MANAGERS, BANKERS, STOCKBROKERS, SOLICITORS, or anyone interested in the MINING INDUSTRY.

A RECORD OF INFORMATION concerning 1,500 Mining Companies operating in all parts of the world. Gold, Diamond, Silver, Copper, Tin, Iron and other Mines, Collieries, Exploration, and Mining Investment Companies, arranged in alphabetical order.

PARTICULARS given of each Company include the Directors and other officials, date of establishment, seat of operations, description of the property, with the purchase consideration, plant erected or in course of erection, present working results, ore reserves, details of capital, calls, dividends paid, and the financial position as disclosed by the latest accounts. Highest and lowest prices of the shares for the last four years, also latest price.

Directors (3,925), Secretaries (750), Mining and Consulting Engineers and Mine Managers (1,000), include their addresses and descriptions and names of the Companies with which they are connected.

SUPPLEMENTARY INDEX of private, dormant, or Companies which have ceased to be of public or market interest. One of the most useful and important features of the book. It is the only list of its kind published.

CRUSHING TABLES and Gold Outputs from the principal mines are given at the commencement of the volume, showing tons treated monthly, results obtained, and yield per ton; also annual yields.

DICTIONARY OF MINING TERMS.—An up-to-date glossary covering 440 mining terms by the use of which mining developments can easily be followed. The difficulty of understanding technical phraeology is thus easily mastered.

To be obtained from all Booksellers, or direct from the Publishers.

WALTER R. SKINNER, 11-12, Clements Lane, London, E.C. 4
AND

"FINANCIAL TIMES," 72, Coleman Street, London, E.C. 2



MAGNOLIA ANTIFRICTION METAL "FLOWER" BRAND.



HAS THE LOWEST CO-EFFICIENT OF FRICTION.
KEEPS down the bill for lubricants, making BEARINGS smooth as glass
and keeping them COOL under heaviest pressures and highest speeds.

Manufactured and Sold By—

THE MAGNOLIA ANTI-FRICTION
METAL CO. OF GREAT BRITAIN, LIMITED,
49, QUEEN VICTORIA STREET, LONDON, E.C. 4.

Agents for South Africa: FRASER & CALMERS, Ltd., Johannesburg,
Bulawayo and Salisbury.

SIEMENS BROTHERS DYNAMO WORKS LIMITED.

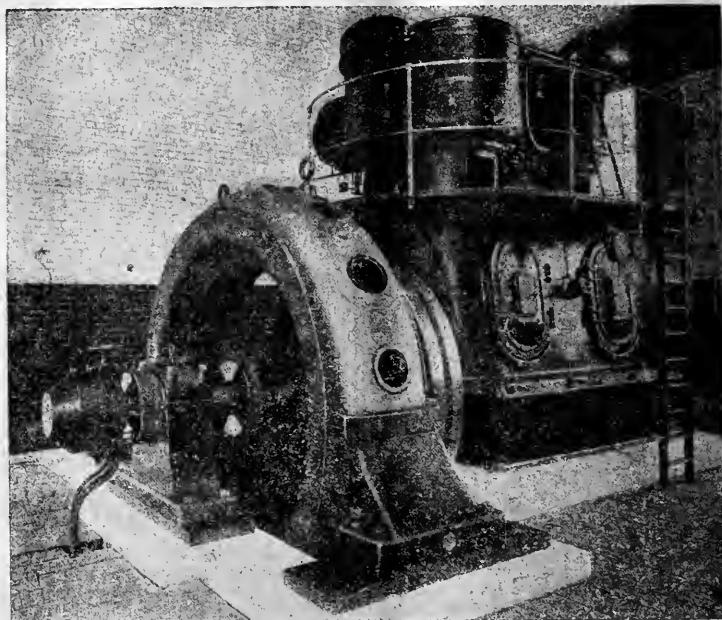
Head Office: PALACE PLACE MANSIONS, KENSINGTON COURT, LONDON, W. 8.

Telephone: Western 6349.

Telegrams: "Siembrales Kens, London."

Works: STAFFORD.

MOTOR DRIVEN AIR COMPRESSORS.



THREE-PHASE INDUCTION MOTOR DRIVING AIR COMPRESSOR
installed at a Colliery in Yorkshire.

Output of Motor: 895 B.H.P., 3000 Volts, 50 Frequency
Speed: 184 R.P.M.

SIEMENS BROTHERS DYNAMO WORKS LIMITED

HOME BRANCHES:

BIRMINGHAM.—Central House, New Street.
BRISTOL.—30, Bridge Street.
CARDIFF.—80, St. Mary Street.
GLASGOW.—66, Waterloo Street.
MANCHESTER.—105, Deansgate.
NEWCASTLE-ON-TYNE.—64-68, Collingwood Buildings.
SHEFFIELD.—22, High Street.
SOUTHAMPTON.—46, High Street.

INDIAN AND COLONIAL BRANCHES:

CALCUTTA.—Clive Buildings, Clive Street.
 BOMBAY.—Stampart Row.
 MADRAS.—Smith's Corner, Mount Hood.
 SINGAPORE.—1, 2, 6 & 9, Winchester House.
 CAPE TOWN.—43a, St. George's Street (first floor).
 SYDNEY.—42, Bridge Street.

MELBOURNE.—Dominion Chambers, 59-61, William Street.
 WELLINGTON (N.Z.)—A. & T. Burt, Ltd., Courtenay Place.
 DUNEDIN (N.Z.)—A. & T. Burt, Ltd., Stuart St.
 AUCKLAND (N.Z.)—A. & T. Burt Ltd., Customs Street West.

Sole Representative in South Africa.

A. J. G. SIMPSON, A.M.I.E.E.,
P.O. BOX 239, CAPE TOWN.

Telephone 1202.

Telegrams "WOTAN"

CITY AND SUBURBAN CONSULTING ENGINEER'S REPORT.

In his annual report for 1917, the Consulting Engineer of the City and Suburban, Mr. P. Cazalet, writes:—The year just ended has shown very considerable retrogression under most headings, as may be seen from the following: Development footage, 1914 10,965, 1915 9,445, 1916 9,844, 1917 6,724; tons mined, 1914 358,218, 1915 380,397, 1916 363,482, 1917 348,767; per cent. sorted, 1914 9·5, 1915 11·4, 1916 10·8, 1917 11·9; tons milled, 1914 324,117, 1915 335,970, 1916 328,108, 1917 306,450; yield, 1914 £587,200, 1915 £606,810, 1916 £601,924, 1917 £527,077; yield per ton milled, 1914 38s. 2·8d., 1915 38s. 1·5d., 1916 38s. 11·0d., 1917 34s. 4·8d.; expenditure, 1914 £398,649, 1915 £356,930, 1916 £383,879, 1917 £367,606; expenditure per ton milled, 1914 20s. 10·8d., 1915 21s. 3·0d., 1916 22s. 3·4d., 1917 28s. 11·9d.; total working profit, 1914 £248,551, 1915 £249,880, 1916 £288,545, 1917 £159,472. The main reasons for this poor record are: first, the decreased value of the yield; second, the increasing cost of labour and stores under war conditions; and thirdly, the inadequate labour supply throughout the year, although this was more marked in the earlier and later periods than during the winter months. The ore reserves on recalculation as at December 31st, 1917, give the following results: Leader, 434,400 tons, value 7·7 dwts.; South Reef, 77,500 tons, value 7·8 dwts.; total, 511,900 tons, value 7·7 dwts. The estimated stoping widths over which these reserves have been calculated are for the Leader 60 inches, and for South Reef 51 inches, as compared with 52 and 49 inches respectively for 1916. The foregoing reserves, consisting wholly of blocked ground can be segregated as follows: Available for stoping, 357,600 tons, value 7·5 dwts.; shaft pillars, 154,300 tons, value 8·1 dwts.; total, 511,900 tons, value 7·7 dwts. These reserves show reductions of 90,800 tons and 1·1 dwt., but with an increased stoping width of 6 inches. This increase is mainly due to the mining of the lower level ore by machine, following on the shortage of native labour, causing the stopes to break unduly wide. But for the necessity for the increase in the estimated stoping width, the reserves would have shown a reduction greater than the above by some 53,000 tons, but the values a drop of only 2·4 of a dwt. This point indicates very clearly the importance of an adequate labour supply, with the conditions met with in the mine. The Main Reef has been further prospected down to the 38th level, with the result that it is now estimated that between the 35th and 38th levels some 450,000 tons, valued conservatively at 5 dwts., are exposed, which should show a fair margin of profit in normal times and help materially towards maintaining the scale of operations as points of attack lessen on the Leader. There is considerable further Main Reef exposed from the 33rd level downwards, some of which, not included in the above estimate, may, with further prospecting prove of payable value. Development on the Leader has proved disappointing on the 37th and 38th levels, eastwards of the centre of this area, no payable ore having been exposed here; more recently, however, in a winze sunk below the 38th level in this impoverished zone a stretch of over one hundred feet of sinking has revealed very good values, and it may reasonably be hoped that the limit of these poor values has now been passed in depth. Good Leader values have been exposed on the 39th level in the western half of the property, while, but for water troubles recently, exposures would also have been made on the 40th and lowest level of the mine, where indications also point to good values being met with at this end of the property. The purchase for £6,000 of the Village Deep side of the mutual boundary pillar down to the 36th level, accompanied by the release of the ore on the City and Suburban side of the boundary has been completed. An agreement has also been come to with the City Deep, Ltd., whereby the City and Suburban half of this boundary pillar between the 28th and 33rd levels has

also been released for stoping. These arrangements increase, for the present, the point of attack on Leader. Reef packing has been continued in the lower levels of the mine where other methods of support have proved inadequate, and has led to more stable and safe conditions of working, but necessitates the breaking of more ore than can be removed for current crushing: the accumulation of broken ore thus employed in the mine is now about 31,800 tons and will tend to increase. The shaft pillars in the subsidiary incline have commenced to give trouble, due to the increasing weight of the formation, and are being removed; where the reef is near to, or passes through the incline, interruptions to hoisting operations are inevitable and have had some effect on the lower results of the past year. Given reasonable labour and hoisting conditions, the bulk of the remaining development on the Leader should be completed early in 1919, after which more time will be available in the excessively long inclines for hoisting ore for the mill, which fact should assist in keeping the plant more fully occupied than has recently proved possible.

PERSONAL.

Congratulations to Mr. Scott Alexander, the well-known prospector, who attained his seventieth birthday yesterday.

* * * * *

Mr. J. L. Wilson-Goode, H.M. Acting Trade Commissioner in South Africa, is on a ten-day visit to the Rand, and may be interviewed at Col. Tremor's offices, Top Floor, Farrar Buildings, Simmonds Street.

* * * * *

The whole of the London staff of the Oceana Consolidated Co., Ltd., of military age, is now serving with the colours. Mr. F. Douglas Osborne, the well-known mining engineer, has been gazetted captain. He is at present serving at a north-country remount dépôt. His friends have been glad to hear of his well-earned promotion.

* * * * *

Mr. S. B. Joel has presented to the Motor Transport Volunteers a three-ton Austin motor-lorry of the best type at a cost of £800. This lorry is at work each night, and during the week conveys over 1,000 leave troops between the northern and southern railway stations of the metropolis at hours when no public conveyances are running. Mr. Joel, who is a great admirer of the work of the M.T.V., will also maintain the lorry for the duration of the war.

* * * * *

The list of certificates issued by the Mines Department for the month ending 30th April, 1918, is as follows:—Mine Overseers' Certificates (Metalliferous): M. T. Cook, W. P. Cowen, D. Finnie, T. J. O'Connor. Mine Surveyors' Certificates: W. E. Atherton, M. Baumann, A. K. Craigie, R. A. H. Flugge de Smidt, G. Hedgson, H. C. Keown, E. M. M. Little, F. D. Long (honours), J. A. Sullivan. Assayers' Certificates: A. G. Boyden (honours), C. T. Creed, M. Eberle, A. C. Harrison (honours), S. N. Hoffenberg, H. S. Kenney, L. W. Macer, C. E. Meyer, J. Thorlund, G. A. Voskule, M. Weinbren, G. C. Wilson.



"RIVERSEA" PAINT.

Quite different from all other paints, supplied in any ordinary colour. Elastic, waterproof, impervious to heat, cold and atmospheric conditions. A perfect preservative for Iron, Wood, Iron & Steel. Has no effect as a positive cure for damp, resists the action of strong acids. Can be submerged under water, and in use withstands very high temperatures of superheated steam. Sole Manufacturers—THE GASSON COMPOSITIONS CO., LTD., Fulham, London, England.

MOSENTHAL BROTHERS LIMITED.

Corner of Market and Kruis Streets,
JOHANNESBURG.

Box 1124.

Telephone 4701.

Tele. Add.: "LUMEN."

IMPORTERS OF MINING MATERIALS.

STOCKS CARRIED OF THE FOLLOWING:—

Cyanide.

Grain Bags.

Zinc

Ore Pockets.

Quicksilver.

Quilliam's Triple Ore Pockets.

Durham Foundry Coke.

White Lead.

Drill Steel, Oxleys.

Bolts and Nuts.

Belting (Mulcott).

Picks.

Acetate of Lead.

Shovels.

Cookson's Litharge.

Seaming Twine.

Price's Mining Candles.

Treacle Sugar.

THE NEW HERIOT CONSULTING ENGINEER'S REPORT.

In his annual report for 1917, Mr. P. Cazalet, the Consulting Engineer of the New Heriot, writes:—The results of the year's work show retrogression from past years, as the following well indicates: Development footage, 1914 1,636, 1915 1,473, 1916 1,387, 1917 1,078; tons from surface dump, 1914 nil, 1915 nil, 1916 591 (included in ore milled), 1917 7,180; tons mined, 1914 184,082, 1915 191,953, 1916 202,040, 1917 183,520; per cent. sorted, 1914 16·2, 1915 18·8, 1916 20·6, 1917 22·3; tons milled, 1914 154,228, 1915 155,600, 1916 160,700, 1917 155,800; yield, 1914 £281,765, 1915 £279,490, 1916 £282,033, 1917 £256,779; yield per ton milled, 1914 86s. 6·5d., 1915 35s. 11·1d., 1916 35s. 1·2d., 1917 32s. 11·6d.; expenditure, 1914 £101,441, 1915 £169,609, 1916 £180,526, 1917 £183,509; expenditure per ton milled, 1914 20s. 11·2d., 1915 21s. 9·6d., 1916 22s. 5·6d., 1917 23s. 6·7d.; total working profit, 1914 £120,485 (includes £161 from accumulations), 1915 £109,881, 1916 £101,507; 1917 £73,270. The outstanding features in this table are the drop in yield of about 2s. 2d. per ton and an increase in costs of about 1s. 1d. per ton: these two features, together with a comparatively small reduction in the tonnage milled, have been responsible for the decrease in working profit of some £28,000. In spite of the reduction in scale of operations the total expenditure has been greater than in any previous year, due to the increased cost of both labour and supplies, as the result of the war. This increase in costs is evident both in mining and reduction operations; over 7d., after allowing for reduced development expenditure in the case of "Mining," and over 5d. per ton for "Reduction." The decrease in grade has also been inevitable owing to the reduced number of points of attack in the better grade blocks in the lower levels, with a correspondingly greater dependence on the blocks and reclamation still contained in the upper levels. This tendency must be expected to become further accentuated during the remaining life of the mine. To meet this feature of future working and allow of the maximum tonnage possible being produced from upper level sources a start has been made quite recently on the creation of a main ore pass from the surface to the 8th level haulage drive, delivering near the position of the auxiliary incline (No. 2 shaft). This pass has to be opened up and walled throughout in stope out areas so as to admit of the lowering by gravity of ore from the upper levels to the mechanical haulage already installed on the 8th level and which is now no longer capable of being fully fed from the lower levels, as was the case in the past. This pass should be in actual use between the 6th and 8th levels within a few weeks and will thereafter be carried up level by level as the old workings are reached. But for the undertaking of this work it would not be possible to maintain the scale of output for any length of time at or near the crushing capacity of the plant, owing to the long length of tramping through old and insecure levels between the western end of the property and the main shaft. Few of the levels above the 8th are open any great distance for tramping to-day, and none of them fully command the proportionately large quantity of ore yet existing in the western half of the property. The ore reserves, including shaft pillars, have been re-estimated as at December 31st, 1917, and amount to the following: Main Reef, 68,721 tons, value 8·2 dwts.; Leader, 170,244 tons, value 7·4 dwts.; South Reef, 96,012 tons, value 7·8 dwts.; total, 334,977 tons, value 7·14 dwts. The stoping widths over which the foregoing reserves have been estimated are 82, 41, and 47 inches for the Main Reef, Leader and South Reef respectively, as compared with 80, 45 and 48 inches a

year ago. The foregoing reserves which consist wholly of blocked ground, may be segregated thus: Presently available for stoping, 251,198 tons, value 7·0 dwts.; temporarily unavailable owing to cavings, etc., 88,778 tons, value 7·5 dwts.; total, 334,977 tons, value 7·14 dwts. Compared with last year the reserves, on the same basis, show a reduction of 142,790 tons and 46 of a dwt. in value. In addition to the reserves there are estimated to be some 35,237 tons valued at 6·8 dwts. in the boundary pillars which will probably become available for stoping in time, as well as considerable ore to be recovered by reclamation work in the older areas, and certain areas which should yield some more payable blocks on more complete prospecting. It is not possible at this stage to give a useful forecast of what pay ore will be recovered from these two sources before the mine becomes exhausted. Water has increased appreciably during the last months of heavy rainfall and at times has caused interference with the work, but the excess water was successfully deflected into workings of less importance. Native labour has proved very short latterly, and with the lessening points where machine stoping can be undertaken larger numbers will be required than formerly to provide similar tonnages. The old surface dump, consisting of development ore and waste, from present indications contains a considerable amount of ore which can, with careful sorting, return a small profit on milling: the fact that this is handy to the sorting station and mill makes it of value as an equaliser of tonnage in times of shortage of labour. Even though the values returned are generally low though erratic, it will serve the useful purpose of steady the cost per ton and in latter months, whilst labour has been especially short, considerable tonnages have, as a consequence, been loaded and sent to the reduction works.

OSTER BULL DOG SCREWING TACKLE.



OSTER
BULL DOG
No. 102 R
4in. to 1in.
Pipe.

One of
eleven
handy
sizes
with and
without
ratchet.

Miners agree that this is the Best Light Hand Screwing Tackle for Mine Work.

OSTER Bull-Dog with ratchet as shown above is almost invaluable around a mine, as it can be used within $\frac{3}{4}$ inches from the wall or floor. Five big features plus the ratchet makes this the handiest tool for mine, machine shop or repair shop. Every mining district knows the five big Oster features:—1, Self-locking dies; 2, self-centring guides; 3, dies open up after cut and reset automatically to size—no breaking off cut screws; 4, no loose bushings; 5, no breakable small parts.

FOR PRICE LIST WRITE—

BARTLE & CO., LTD., Johannesburg,

AGENTS FOR

THE OSTER MFG. CO.,
CLEVELAND, OHIO, U.S.A.

Makers of a Full Line of Screwing Tackle—Hand, Belt and Motor-Driven; for all sizes and uses.

COPPIN & LLOYD, 182 & 184, FOX ST., JOHANNESBURG.
MACHINERY MERCHANTS & DEALERS.
TWO 100 H.P. BABCOCK AND WILCOX BOILERS,
Last test—140 lbs. per square inch.
Tel. Add.: "INTEREST." Phone 1965
Box 2283.

“HYDROMAX”

New Water Hammer Drills to
supersede Reciprocating Drills.

The “Hydromax” weighs 90-lbs.
 It is Suitable for Stoping, Raising and Driving.



It drills 30% faster than any other drilling machine.

Low Air Consumption.

No Mine Manager can afford to neglect the economic merits of the

‘HYDROMAX’ The Fastest Rock Drill in the World.

We have exclusively manufactured drills for thirty-seven years and the “HYDROMAX” is our crowning effort.

THE CLIMAX ROCK DRILL & ENGINEERING WORKS, Ltd.,
 CARN BREA, CORNWALL (Wm. C. Stephens, Managing Director).

Agents—

WM. HOSKEN & CO.,

Phones 4113/9.

Box 667, JOHANNESBURG. Telegrams: “HOSKEN.”

THE WEEK IN THE SHAREMARKET.

Confidence Restored—Prices Improving—Better Tone.

PRICES were firm on Saturday morning and at the call there was practically no alteration in the list, so far as free dealing stocks were concerned. There was an increased bid for Witbank Collieries, but these shares are as hard to buy as they are to sell. On Monday morning business was restricted, but the favourites were all maintained at high level with an advance in New Moddersteens. Tuesday's call was a repetition of the previous day's performance, with the exception of advances in Brakpans and Daggafonteins and a falling-off in Lydenburg Farms, S.A. Lands and Lace Props, which generally move together; Zaaiplaats were also weaker. The market was firm all day and closed with satisfactory prospects. At the opening on Wednesday, Government Areas, Geduld Props and Zaaiplaats were in good demand at advanced rates. Government Areas touched 75s. and Geduld 41s. 3d., but both eased off somewhat. At the call prices were steady. Rand Selections, for which 91s. was freely offered and refused, were finally sold at 90s. Zaaiplaats were again better and so were Leeuwpoorts. In the course of the morning Sub Nigels advanced to 25s. 3d. and New Modders to £23 5s. The market kept firm through the afternoon with an improvement in Modder Easts. Thursday being Ascension Day, the Stock Exchange was closed.

Friday's opening was monopolised by Lace Props. They were knocked backwards and forwards at a minimum of 11s. 9d. and a maximum of 12s. 3d. The public has evidently not taken kindly to the new scheme, under which holders are to receive one share for two, which at Wednesday's price meant a premium of 7s. 6d. At the call prices were firm and the tone generally cheerful. The chief advance was in Sub Nigels, the latter after sales at 26s. closing 26s. 3d. buyers. The following list of the alterations in prices are an indication of the better tone:—Sales: Bantjees, 3s. 6d.; Geduld Props, 41s. 9d. and 41s. 6d. and sellers; Government Areas, 7s. 9d. and buyers; Knight Central, 3s. 8d.; Lace Props, 12s. 3d.; Modder Easts, 20s., and sellers; three-year options, 6s. 4d.; New Areas, 18s. 9d.; Rand Klips, 9s. 6d.; Sub Nigels, 26s.; Village Deeps, 17s.; Lydenburg Farms, 9s. 9d. Buyers and sellers: Apex, 7s. 6d.—7s. 9d.; City Deeps, 59s. 6d. buyers; Main Reefs, 18s. 6d.—14s.; Daggafonteins, 7s. 3d.—7s. 9d.; Modder Deeps, £7 5s. 6d.—£7 7s. 6d.; Modder East four-year Options, 7s. 6d.—7s. 9d.; Nourse Mines, 18s. 6d.—19s.; Pretoria Cements, £5 16s.—£5 17s. 6d.; Consolidated Lands, 12s. 6d.—13s. The dealings in outside stocks for the week were:—Sales: Union Tins, 3s.; S.A. Alkalies, 66s. 3d. to 68s.; Sakalavas, 9s. 9d. to 10s. 6d.; South Van Ryns, 14s. 6d. and 14s. 9d.; Monteloebs, 30s.; Hume Pipes, 45s. Buyers and sellers: Union Tins, 3s. 3d.—3s. 6d.; Phoenix, 10d.—11d.; Henderson's Estates, buyers, 5s.; Makgangané Diamonds, 19s. seller.

	Thurs.	Fri.	Sat.	Mon.	Tues.	Wed.
	2nd.	3rd.	4th.	6th.	7th.	8th.
African Farms	10 0	9 9	9 6*	9 6	9 3*	9 6*
Anglo-Amer. Corp.	31 0*	32 0*	31 0*	34 0*	32 0*	32 0*
Apex Mines	7 6*	7 4*	7 6*	7 6*	7 3*	7 3*
Bantjees Cons.	2 10*	2 9*	2 9*	3 0	3 1*	—
Brakpan Mines	85 0*	90 0*	92 6	90 0*	92 6*	92 6*
Breyten Collieries	—	10 0*	11 3*	—	11 3*	11 3*
Bushveld Tins	0 11†	0 9*	0 9*	0 9*	0 9*	0 9*
Cassel Coals	—	—	22 6*	—	27 6*	28 0*
Cinderella Cons.	—	—	—	3 0*	3 0*	3 0*
City & Suburbans	13 6	13 3*	13 6*	13 6*	13 9*	—
City Deeps	57 0	57 0*	57 0*	—	58 3	58 6
Cloverdale Mines	8 7*	8 7*	8 6*	8 0*	8 0*	—
Clydesdale Collieries	15 0*	—	15 0*	15 0*	—	15 0*
Concrete Construct.	4 0*	4 3*	5 6*	6 3*	5 6*	6 3*
Con. Langlaagtees	16 9*	17 0	17 0*	17 0*	17 6*	17 0*
Con. Main Reefs	13 0	12 9*	13 0*	13 0*	13 0*	13 0*
Con. Mines Select.	26 0*	27 6	27 6*	27 6	28 0	27 0*
Coronation Free.	—	1* 3*	1* 4*	1 5*	1 5	1 4*
Crown Diamonds	—	3 3*	3 6*	5 0†	5 0†	5 0†
Daggafontein Mines	23 0*	24 0	23 9*	24 0*	25 0*	25 0*
Do. Options	7 3*	7 6*	7 3*	7 3*	7 0*	7 9
Durban Rood. Deeps	—	8 0*	8 6*	—	9 0*	9 0*
East Rand Coals	2 1*	2 1*	2 1*	2 0*	2 1*	2 1*
East Rand Deeps	0 11	0 10	0 9*	0 9*	0 9*	0 9*
East Rand Minings	15 6*	—	17 6†	17 6†	17 6†	17 6†
East Rand Props.	3 3*	3 6*	4 0*	4 0*	4 3	4 6
Eastern Golds	1 2†	1 1*	1 2†	1 1*	1 1*	1 1*

	Thurs.	Fri.	Sat.	Mon.	Tues.	Wed.
	2nd.	3rd.	4th.	6th.	7th.	8th.
F. Smith Diamonds	2 0*	2 0*	2 9*	2 9*	2 9*	2 10*
Geduld Props.	—	39 6	39 3	—	39 9	41 1
Glencairns	1 6†	—	—	31 6†	1 0*	1 3*
Glenco Collieries	8 6*	8 6†	—	—	8 9†	8 9†
Glynn's Lydenburgs	16 3*	17 3*	17 3*	17 3*	17 3*	17 0*
Government Areas	73 0	73 3*	73 6	74 0	74 3*	78 6*
Jupiters	—	P 6*	4 6*	4 6	4 3*	4 3*
Klerksdorp Props.	—	—	1 9*	—	1 9*	—
Knight Centrals	3 1*	3 0*	3 2	3 1*	3 1*	—
Lace Props.	15 0*	14 6	14 9†	11 6*	13 9*	13 9
Leeuwpoort. Tins	22 0	22 0*	22 0	22 0	21 6*	22 0
Lydenburg Farms	10 3*	10 3	10 0	9 10	9 6	9 7
Main Reef Wests	2 7*	2 8*	2 8*	2 9	2 8*	—
Middlevlei Estates	—	1 3†	—	—	1 3†	1 3†
Modder B	133 0*	138 0	155 0	155 0*	155 0*	155 3*
Modder Deep	141 0*	145 0*	146 0	145 0*	144 6	146 9*
Modder Easts	20 6*	19 7*	19 6	19 19	19 7	19 6
Do. Opta. (3 yrs.)	6 0*	6 2*	6 1*	6 1*	6 0*	6 0*
Do. Opta. (4 yrs.)	7 8*	7 3*	7 3*	7 3*	7 4*	7 4*
Natal Navig. Col.	20 0*	20 0*	20 0*	20 0*	20 0*	20 0*
New Boksburgs	1 3*	1 1*	1 0†	—	—	—
N. Eland Diamonds	31 0†	31 0†	31 0†	31 0†	29 0	—
New Era Cons.	10 0*	10 3	10 6*	10 6*	10 3*	10 3*
New Geduld Deeps	6 0†	—	—	5 6*	—	5 9*
New Heriots	21 0*	22 6†	21 3*	21 3*	22 0†	21 3*
N. Kleinfonteins	13 3*	13 1*	13 3*	13 4	13 3*	13 3*
New Modders	£224*	£224*	£224*	£23	£23*	£23*
New Unifeds	5 3*	4 11*	4 11*	5 0*	—	—
Nigels	3 3*	3 6*	3 9*	3 6*	3 6*	3 6*
Nourse Mines	17 0*	17 3*	17 0*	17 0*	17 6*	—
Pretoria Prefa.	—	—	—	140 0*	140 0*	—
Pretoria Cements	116 6*	117 6	117 0	116 0*	116 0*	115 0*
Princess Estates	1 10*	1 10*	1 10*	2 0*	2 0*	2 0*
Rand Klips	9 0*	9 3*	9 9†	9 9*	9 9*	9 9*
Rand Nucleus	1 3*	1 0	1 2*	1 2*	1 2*	1 2*
Rand Select. Corp.	90 6	91 0*	92 0	90 9	91 6	90 0
Randfontein Deeps	3 10*	3 10*	3 10*	4 0†	—	4 0†
Randfontein Ests.	12 3*	—	12 3*	12 3*	12 3*	12 6*
Roberts Victors	6 9†	—	6 0†	—	6 0†	—
Rooibergs	13 0*	13 1*	13 1	13 0	12 9*	13 0
Roodpoort Uniteds	3 9*	3 9*	3 9*	3 9*	—	3 9*
Summer and Jack	2 6*	3 9*	—	—	—	—
Simmer Deeps	1 10*	2 3†	2 0	1 11*	1 9*	1 10
S.A. Breweries	27 0†	27 0†	—	—	—	27 0†
S.A. Lands	6 8	6 4*	6 4*	6 4	6 1*	6 2*
Springs Mines	69 9	69 0	68 9	69 3	69 0*	69 6
Sub-Nigels	24 0	24 0	24 0*	24 0*	24 6	24 6
Swaziland Tins	27 0*	27 0*	30 0	30 0*	—	32 0†
Transvaal Lands	—	—	—	—	11 6*	12 0*
Trans. G.M. Estates	13 0*	13 0*	13 0*	—	13 0*	13 0*
Van Ryn Deeps	70 4†	71 3	71 3	71 3	71 0*	71 6
Village Deeps	17 6*	—	16 6*	16 3	16 9*	16 6*
Village Main Reefs	10 6*	11 0*	11 0*	11 0*	—	11 0*
West. Rand Estates	2 0*	2 0*	2 0*	2 0*	2 0*	2 0*
Wit. Deeps	50 0*	50 0*	—	51 0*	50 0*	—
Wolhuter	9 3	8 9*	8 9*	8 3*	9 0	9 3
Zaaiplaats Tins	13 3	18 0	18 2	18 2	17 10	18 5
Union 5 per cent.	13 3	18 0	18 2	18 2	18 0	18 5
New State Areas	18 6	18 3	18 3	18 3	18 3*	18 6*

*Buyers. †Sellers. ‡Odd lots. sEx London.

Phone 4673.

Box 3162.

OSBORN'S

T. C. STEEL

GEARING.

MACHINE CUT OR MOULDED.

Write or Phone for Stock List.

SAMUEL OSBORN & Co., Ltd., SHEFFIELD and JOHANNESBURG.

W. L. SAUNDERS, Chairman.
J. H. JOWETT, Vice-Pres.

GEORGE DOUBLEDAY, Pres.
F. A. BRAINERD, Vice-Pres.

W. R. GRACE, V.-P. and Treas.
L. D. ALBIN, Gen. S.M.

Cameron Centrifugal Pumps

For Highest Efficiency.



The Simplicity of Design and High Quality of Material and Workmanship produce a Pump of Extreme Reliability.

Cameron Centrifugal Pumps have been thoroughly . . . PROVED under all conditions of service.



The Horizontally-Split Casing permits ready access to all Parts without disconnecting any Piping.

INGERSOLL-RAND CO.

Exploration Buildings.

Johannesburg.

Important to Mine and Compound Managers.

Messrs. L. FATTI & CO., LTD.,

The Proprietors of FATTI'S MACARONI FACTORIES, and Suppliers of SOUP MACARONI
FOR THE

Mine Boys, beg to inform the Mine and Compound Managers that despite the present high cost of flour, the price for this wholesome and very nourishing food has been practically kept at the pre-war level, thus making Macaroni the most economical food of the present times. Owing to the general increase of the prices of all foodstuffs Soup Macaroni has now been introduced into the native diet by a large number of Mining Companies, in whose Compounds the full content of the Boys has been gained by occasionally changing with Macaroni their somewhat monotonous menu.

For quotation and orders please apply to Box 1139, 'Phone 962, Johannesburg—L. FATTI & Co., Ltd.

THE WEEK IN THE MINING MATERIAL AND ENGINEERING TRADES.

Shipping Problem Still Unsolved—Timber and Galvanised Iron Soaring—Saw Mills Doubled—Bar Iron's Record Price—Shortage of Nuts and Bolts—Paraffin Advancing.

BUSINESS still continues on the down grade, partly because of the restricted buying orders from the central office and partly because of the shortage of the stocks required. A responsible business representative has just returned from a visit to the coast ports, where he went to ascertain for himself how things were going. And more particularly to penetrate if possible the perplexities of the shipping question, which at the moment is the crux of the South African commercial position. He has to admit, however, that the shipping problem remains to him as much a mystery as ever, as it appeared that Johannesburg is quite as well supplied, and usually better, with cable information received by the various firms here who are in constant communication with all parts of the world. From the knowledge gained he found that America is very much in earnest about the war, therefore did not intend having any nonsense over their shipping requirements, which means that any goods from there for South Africa must come in sailing vessels. These vessels take on an average quite four months, and even more, as he saw one arrive at the Cape last month that left New York in December. The ship in question brought a large quantity of general American goods, but very little steel or mining material. His conclusion is that South Africa

will be in for a bad time as regards replenishment of mining material and general merchandise, chiefly because the first call on the world's shipping will be on war account, and until that situation is eased, he cannot expect any relief. As a side remark he expressed the opinion that the war prospects were very much brighter now than when he left Johannesburg for his coast visit.

THE TIMBER TRADE AND GALVANISED IRON.

The price of deals, as anticipated, advanced another penny during the week, being now 1s. 8½d. to 1s. 9½d. per foot, and the 2s. mark is expected to be within practical politics. This may have the effect of checking new private residences, but other things, such as building new business premises and alterations, will go on much as usual. The price of imported timber will give the South African variety an excellent chance of being tested, which has been anticipated as there are double as many saw mills in Johannesburg and the Reef as before the war. These are kept in full work, as they have to cater for the box and packing-case trade, the furniture trade, the making of all kinds of doors and windows for the building trade, the mines and such like. It is anticipated that the architects will allow a certain proportion of S.A. pine and yellow woods to be used freely in Johannesburg buildings, which will not only assist the position to-day, making for lesser costs, but the great to-morrow after the war. South African hard woods have gradually come to the fore for the making of fancy fireplaces, staircases, window, door and verandah-

**TOM SPENCER,
CONTRACTOR.**



All Classes of Boilers Examined and Repaired.
General Overhauling of Mine Locomotives.

P.O. Box 28, —— WITBANK.

Mine Survey and Drawing Office.

Mining Properties surveyed and plans kept up-to-date as required.
All kinds of drawings and tracings neatly done. Blue prints made.

D. R. COLMAN,

Cert. Mine Manager.

Surveyor.

27 and 50, PERMANENT BUILDINGS, HARRISON STREET,
JOHANNESBURG.
Phone 1244, Central.

P.O. Box 957.

AFRICAN INDENT MERCHANTS, LTD.

P.O. Box 5073.

JOHANNESBURG.

Telephone 1136.

“AIM” COOLER TUNNEL SLAB

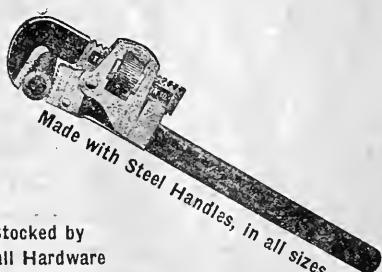
As supplied to

The BRITISH ADMIRALTY and WAR OFFICE.

ITS high melting point makes it invaluable for hot climates or heated engine rooms. It is clean to handle, simple to apply, and free from offensive smell. Its lasting properties are much greater than Tallow and other Lubricants, which make it work out very economically.

To ensure satisfaction, your instructions to forward practical sample gratis will be much appreciated.

When Ordering **STILLSON WRENCHES**
Demand **TRIMO** with the
Steel Frames and Nut Guards.



Stocked by
all Hardware
Merchants.

Of all Stillson Wrenches
TRIMO
is the Best.

With Steel Frames that will not
break and Insert Jaw in Handle—two
economies for the user.

Made by **TRIMONT MFG. COMPANY,**
Roxbury, Mass., U.S.A.

SOLE AGENT FOR SOUTH AFRICA:

WM. JOHNSTON,

P.O. Box 5580.

President Buildings, c/o President
and Von Brandis Sts., Johannesburg.
Phone 2286.

architectural decorations. The advanced cost of timber is on account of the increase of original cost in Sweden, as well as freight and insurance charges. Galvanised roofing iron has also risen from 1s. 10d. to 2s. per foot, as in addition to the scarcity and the absorption without replenishment, the architects favour that kind of roofing for business premises in town where it does not matter, or rather does not form a part of the architectural effect, in the same way as tiles can sometimes be used.

IRON, STEEL, HARDWARE AND SHOVELS.

A builders' hardware house, for baths, sanitary ware, stoves and the hundred and one things required in the hardware line, had practically a war record for the month of April, and even more could have been accomplished had the stock been plentiful and fully assorted. Dealers in round, square and flat bar iron also say much the same, as to business being restricted to those firms having just the things in active demand. A record was put up in $\frac{1}{4}$ inch imported bar iron, when an urgent order was required and the rate of £100 per ton was charged for a few hundred pounds, which were not easily obtainable at the moment. However, enquiry was made at another place, and the price was said to be nearer £85 per ton rather than £100, but in any case it was admitted that it was difficult to obtain owing to its scarcity. The pre-war price was £12 per ton. Shovels are getting scarcer from week to week. It is said that No. 2 round nose solid strapped shovels cannot be had under 75s. per dozen. A parcel of shovels was on offer last week at 70s., without discount or allowance of any kind, which one merchant refused, but no doubt a consumer, such as a mine or contractor would take them at the price. There has been a little relief in the iron and steel position from America during this month, and a few supplies are expected to reach Johannesburg from the coast this week. In this connection it was learned that on a consignment of mining goods just to hand the war risk amounted to a third of the home cost, therefore such high values mean a lesser margin

for profits. There is a scarcity of short bolts from three-inch downwards in all diameters, simply because the oversea supplies are lacking and the local makers will not tackle these short sizes; there is also a dearth of medium-sized nuts—nuts are not made here.

OILS, PARAFFIN AND WHITE LEAD.

The price of paraffin has risen 1s. per case on account of the advance in the original cost and the higher freight charges. The latter are six times as high as in pre-war times. The linseed oil and white lead position has not changed; local grease is higher by 10s. per ton, because there is a greater demand than the local raw material can meet. According to a Reef traveller the mines bought freer at the opening of this month of all local things. One mine manager states that he had tried a sample of South African white lead, but it required some improving before he could recommend its adoption. The stocks of ready-mixed paints are gradually being reduced throughout the town, which is accounted for by the shortage of white lead and other ingredients to manufacture new supplies as quickly as they are absorbed.

ELECTRICAL MATERIALS.

There is an acute shortage of tubing, and what little can be picked up is 2s. 6d. higher. Several decent consignments of electric lamps have arrived at the coast from Holland via England; quite sufficient to relieve any prospective shortage during the next few months. One firm also received 60 gross of blocks this week. However, business is slack, chiefly because our stocks are very low indeed. For example, concentric cable is the principal trouble to-day as little can be had, therefore in some cases the Municipal street cables cannot be connected to the house and other installations. The Japanese supplies of electrical materials are disappointing, as so much was expected and so little accomplished so far.



Pittsburgh Steel Company
Pittsburgh, Pennsylvania, U. S. A.

Manufacturers of
"PITTSBURGH PERFECT"

Open Hearth Steel Products

INCLUDING

Galvanized Wire Bright Nail Wire
Annealed Wire Bright Hard Wire
Varnished Wire Bright Soft Wire
Bolt and Rivet Wire
Galvanized Barbed Wire
Wire Nails Fence Staples

Pig Iron, Blooms, Billets, Wire
Rods, Hard Spring Coil Wire,
Twisted Cable Wire, Telephone
Wire, Bale Ties, Steel Hoops, Steel
Bands, Cotton Ties and Fabricated
Stock, Poultry and Lawn Fencing.

We are prepared to give **PROMPT SERVICE**, and solicit
your inquiries accompanied by complete specifications.

Address

PITTSBURGH STEEL COMPANY
EXPORT DEPARTMENT
EQUITABLE BUILDING
NEW YORK, U. S. A.

Cable Address: "PITSTEEL"

STANDARD BANK

of SOUTH AFRICA, Ltd.

ESTABLISHED 1862.

Bankers to the Government of the Union of South Africa
in the Cape Province; to the Imperial Government in
South Africa; and to the Administration of Rhodesia.

Subscribed Capital	-	-	£6,194,100
Paid-up Capital	-	-	1,548,525
Reserve Fund	-	-	2,000,000

OVER 250 BRANCHES AND AGENCIES in the
Union of South Africa, Rhodesia, Nyassaland, East
Africa Protectorate, Uganda, Portuguese East
Africa, Protectorate of South West Africa, and the
Territory formerly known as German East Africa.

Head Office in Africa: CAPE TOWN.

London Office: 10 Clement's Lane, Lombard St., London, E.C.

New York Agency: 68, Wall Street.

HADFIELDS LTD.

Workmen employed
over 15,000.

Hecla and East Hecla Works, Sheffield, England.

Works area
over 200 acres.

SOLE MAKERS OF HADFIELD'S PATENT

"ERA" MANGANESE STEEL

The Supreme Material for the Wearing Parts of Stone Breaking and Ore Crushing Machinery, etc.

Complete
Stone Breaking
and
Ore Crushing
Plants.



HADFIELDS LTD. SHEFFIELD.

Group of Hadfield's Patent "ERA" Manganese Steel & Hadfield's
"CHROME" Steel Wearing Parts for Ball Mills and Tube Mills.

Mining Requisites of all kinds, Grizzley Bars, Shoes & Dies, Steel Wheels & Axles, Balls for Ball Mills, etc

Head Office for South Africa:
46 & 47, GULLINAN BUILDINGS,
JOHANNESBURG.
Phone 5900. Tel. Add.: "Hecla."

Bulawayo Agents:
WHITMORE & JACKSON,
17 & 18, Agency Chambers.

Salisbury Agents:
P. PEACH & CO.,
Angwa Street.

Natal Agents:
THOMAS BARLOW & SONS,
Smith Street, Durban.

Steel
Castings
and
Forgings
of all descriptions.



Small Stuffing Boxes Need the Right Packing

because the amount of packing is small
and is more likely to burn out or harden.

"PALMETTO" TWIST PACKING

does not burn out, it's made of heat resisting materials. It does not harden, because each
single strand contains lubricant.

GIVES LONG SERVICE

by unstranding any size valve packed from one spool of "Palmetto" Twist.

LET US SEND YOU A SAMPLE FREE.

GREENE, TWEED & Co.

Sole Manufacturers,

109, DUANE STREET, NEW YORK.

CARRIED IN STOCK BY

BARTLE & CO., LTD., Johannesburg.

E. W. TARRY & CO., Kimberley, Salisbury & Bulawayo.



TRANSVAAL OIL FIELDS—NEW INDUSTRY.

In the Wakkergat district an oil shale field is under development. There is a cutting of 180 feet and a shaft down 42 feet. Large samples of the shale have been brought into Johannesburg, taken over a body of four feet, and the analysis shows a high yield of crude oil per ton. This is now being tested by independent people, who have arranged to take their own samples, and if the analysis in question is anywhere near correct, another syndicate will take over the property for full development.

THE POORER GRADE MINES.

The Union Parliament closed without discussion the pros and cons of the advisability of assisting the lower-grade mines. A debate on such an important subject would have been very interesting and instructive, to say the least.

REVISED PRICE LIST.

BUILDING MATERIALS.—Timber: Deals, Baltic, 9 x 3; 1s. 7*qd.*
1s. 9*qd.*; flooring, 4*q* x 1*q*, 10*qd.* and 6 x 1*q*, 10*qd.* per square foot;
flooring, 4*q* x 1*q*, 10*qd.*; and 6 x 1*q*, 10*qd.*; ceilings, 6*q* x 1*q*, 6*qd.*
per square foot; pitch pine, 9*q* per cubic foot; Oregon, 7*q* to 8*q* per cubic foot; clear pine, $\frac{1}{4}$ in. x 1*q* x 12*in.*, 1s. 3*qd.* per foot;
lin. x 12*in.*, 1s. 6*qd.*; teak, 19*q* to 21*q*, per cubic foot; shelving,
1*q*. Id.; jarrah, 12*q*. 6*qd.* cub. ft.; poplar, lin. x 12*in.*, 1s. 6*qd.*; scantlings,
1*q*. 8*qd.* to 1*q*. 9*qd.* foot; beaver boards, 6*qd.*; galvanised iron, 24-gauge,
6*ft.* to 10*ft.*, 2*q*; 11*ft.*, 1*q*; 12*ft.*, 2*q*; 2*qd.*; 26-gauge, 6*ft.* to 8*ft.*
1*q*. 7*qd.*; 9*ft.* and 10*ft.*, 1*q*. 7*qd.*; flat galvanised, 24-gauge and 26-gauge,
1*q*. 5*qd.*; 1*q*. 10*qd.*; floor boards, 6*qd.*; ceiling, 50*q*; wire nails, 47*qd.* to 60*qd.*
100*lb.*; locks, rim, 6*qd.*; mortice, 70*q*; per dozen; steel ceilings, 80*q*.
85*q*; roofing material, 1 *ply*, 45*q*; 2 *ply*, 52*q*. 6*qd.*; and 3 *ply*,
57*q*. 6*qd.* per roll.

BRICKS, CEMENT, LIME, ETC.—Pretoria Portland Cement, 9s. 3d. bag; 8s. 3d. truck loads; lime, white, unslaked, 7s. 6d.; truck loads, 6s. 6d.; slaked, do., 5s. 6d.; blue, 4s. 6d.; plaster lime, 5s. 6d.; bricks, stock, delivered, 65s. to 70s.; wire cuts, 70s. to 80s.; pressed, 70s. to 80s. 1,000; road transport expensive when obtainable; salt-glazed, £15 15s. and white bricks, £55 per 1,000; roofing tiles, £17 10s. to £27 10s. per 1,000; glazed tiles, 17s. 6d. to 27s. 6d. per yard; paving cement tiles, 8s. 6d. per yard laid; reinforced concrete columns, 6ft. plain, 25s.; fluted, 30s.; fireclay bricks, £8 10s. to £10 10s. at kiln, per 1,000; clay chimney pots, 45s. to 70s., according to height, 12in. to 18in. per dozen.

OILS, PAINTS, LEAD, OXIDE, GLASS.—Linseed, raw and boiled, 13s. 3d. to 13s. 6d. O.M. gall.; white lead, 1s. 8d. per lb. and 1s. 3d. in big lots; turpentine, 66s. 2 $\frac{1}{4}$ 1-5 gal.; 10/- 5-6 imp. tins, 72s.; oil oxide in oil, 60s. per 100 lb.; dry oxide, 13s. 6d. to 1s.; linseed oil putty, 9d. per lb.; paints in tins, 1s. 6d. lb.; British plateglass, 4*in.*, 6s. 6d.; do., mirror, 7s. 9d.; window, 18 oz., 1s. to 1s. 6d. per foot; and fancy glasses, 2s. per foot.

GREASE.—Imported, A.F. axle, £35s. local, £27s. to £28 per ton; tallow (local), 8d. per lb.; White Ross paraffin, 20s. 4d. 2/4d. Laurel paraffin, 20s. 1d.; petrol, 35s. 6d. to 43s. 6d. 2/4 I.M.P.; motor oil, 7s. to 7s. 6d. per gallon; engine lubricating oils, 35s. to 46s. per case; cylinder, 35s. to 46s.

for salts, 5d. each, lbs. to 40s.
CHEMICALS.—Mercury, £40 75lb.; bichromate potash, 5s. 6d. lb.; chloride, 4s. 6d. lb.; permanganate, 11s. 6d. lb. to 13s. lb.; alum, 6d. lb.; carboxic acid, 7s. 6d. lb.; borax, 115s. 100lb. lb.; cyanide sodium, 2s. 3d. to 2s. 6d. per lb.; hypo, 9d. lb.; nitrate lead, local, 50s. 100lb. litharge (assay), 70s. to 72s. 6d. (commercial), 58s. 6d. 100 lbs.; zinc sheets and blocks, 1s. 9d. lb.; locally-melted zinc, 6d. lb.; plumbago crucibles, 5d. per number; carbide, 108s. to 112s. 100lb.

ELECTRICAL GOODS.—Lamps, high voltage, British, Holland and American, 30s. to 36s. wholesale, and 48s. to 64s. doz. retail; carbon lamps, 18s. dozen; pure rubber flex, 6d. to 8d. yd.; 30/20 coils wire, 50s. to 60s. ditto; 3/22, 35s. to 72/20, 60s.; 7/20, 105s. to 7/18, 135s.; tubing, 30s. to 32s. 6d. per 100ft.; keyholders, 4s. 6d. to 5s. 6d. each; round blocks, 3/11, 5s. 6d. to 6s. dozen; lamp holders, cord grips, 15s. to 15s. 6d. per dozen; switches, 5m. 36s., 30s. to 42s. per dozen; British glass shades, 30s. to 40s. dozen; porcelain shackles, 15s. to 18s. dozen; do, bobbins, 25s. to 30s. per 100; cleats, 22s.

IRON.—Imported, $\frac{1}{2}$ in. and $\frac{3}{4}$ in. round, 9d. to 1s. lb.; $\frac{1}{2}$ in. round and square 70s. to 75s. 100lb.; $\frac{3}{4}$ in., 88s.; $\frac{5}{8}$ in. round, 50s. to 55s. 100lb.; thin, round, 36s. to 40s. 100lb.; square iron, 36s. and up, 100lb.; flat iron, small shoeing sizes, 55s. to 70s.; flat, average width and thickness, 37s. 6d. to 50s.; round iron, local, $\frac{1}{2}$ in. upwards, 33s. 6d. per 100lb.; square iron, local, $\frac{1}{2}$ in. upwards, 33s. 6d. per 100lb.; flat iron, average width and thickness, 33s. 6d.; mild steel bar, 6d. to 9d. per lb. drill, 10d. to 1s. per lb.; steel plates, 70s. to 80s.; many sizes unobtainable; hexagon and cuphead bolts, 70s. to 100s.; $\frac{1}{2}$ in. diameter, 2s. per lb.; 5-16in. diameter, 1s. 9d. per lb.; $\frac{1}{2}$ in. diameter up to 2in. long, 1s. 9d. lb.; $\frac{1}{2}$ in. dia., 1s. 6d.; $\frac{3}{4}$ in. and up long 1s. 6d. lb.; $\frac{1}{2}$ in. dia. up to 2 $\frac{1}{2}$ in. long, 77s. 6d. 100lb.; $\frac{1}{2}$ in. dia. and 2 $\frac{1}{2}$ in. up long, 75s. 6d. 100lb.; $\frac{1}{2}$ in. dia. and up long, 55s. per 100lb.; $\frac{1}{2}$ in. dia. and up long, 60s. per 100lb.; $\frac{1}{2}$ in. diameter, 23in. and up long, 55s. 100lb.; $\frac{1}{2}$ in. and 1in. diameter, same price as $\frac{1}{2}$ in. diameter; nuts, $\frac{1}{2}$ in., 1s. 3d. per lb.; $\frac{1}{2}$ in., 88s.; $\frac{1}{2}$ in. to 1 $\frac{1}{2}$ in., 75s. 13in. and 1 $\frac{1}{2}$ in., 85s.; 1 $\frac{1}{2}$ in. to 2 $\frac{1}{2}$ in., 87s. 6d.; 2in. up, 92s. 6d.; washers, all 45s.; rivets, 3-16in., 1s. 6d. lb.; $\frac{1}{2}$ in., 5-16in., 1s. 6d. lb.; 7-16in., $\frac{1}{2}$ in., 1s. 3d. lb.; $\frac{1}{2}$ in., 75s.; $\frac{1}{2}$ in., 65s.; 10s. 100lb.; shies and dies, 32s. 6d. to 35s. 100lb.; rails, £25 per ton picks, 4lb., 40s. doz.; shovels, 70s. to 75s. doz.; drill hammers, 5d. to 6d. per lb.; hammer handles (best American), 14in., 4s. 6d. 24in. 10s.; 30in., 14s.; 36in., 16s. 6d. per dozen; metal, anti-friction, knoxite, 1d. to 4s. and special prices per lb.

In consequence of the daily, and even hourly, variation in prices, the Editor will answer reply-paid telegrams to verify any quotation in our list.

Verdite Mines.

From the talc produced by these mines there are many useful articles which can be made. The company is amply demonstrating this by placing various useful articles on the market which used to be imported, and has thereby started industries which should be maintained even when the war is over. The "Verdite" boot-white for cleaning white boots and shoes, suede gloves and white hats is a splendid example of what local industry can do. It is beautifully got up, and we understand that the demand is enormous. Mr. T. D. Cunningham has also invented a talc pencil which will write equally well on slates, wood, coloured paper, iron, steel or glass. It is lovely and smooth to use, and it is claimed that these will supersede the old-fashioned slate pencil and there will be a world-wide demand for them. Billiard chalk, which it is now impossible to import, is also being manufactured by the Verdite Company.

Box 3807

Tel. 5892

WRIGHT'S ROPES

H. ALERS HANKEY - - - Sole Agent

The Week's Meetings.

MESSINA (TRANSVAAL) DEVELOPMENT CO., LTD.

The adjourned annual ordinary general meeting of the Shareholders of the Messina (Transvaal) Development Co., Ltd., was held at Salisbury House, London, Wall, E.C., on Wednesday, March 20, 1918. Mr. C. F. H. Leslie (chairman of the company) presided. Mr. A. A. Kelsay, F.C.I.S. (secretary), read the notice convening the meeting and the report of the auditors.

REVIEW OF THE COMPANY'S POSITION.

The Chairman said: Ladies and Gentlemen.—With your permission we will take the report as read, and I will at once proceed to review the position of the company, as shown by the directors' report, and will then endeavour to bring it before you up to date. I should like, first of all, to call your attention to an omission which has occurred in page 4 of the report in respect to the list of securities. There should have been included in that list 2,634 shares in the Santa Gertrudis Co. These shares were, in fact, sold after June 30, 1917, and realised the sum of £1,369 0s. 3d., but the realisation did not come into the year under review, so that the assets against the securities' account of £11,284, were, in fact, £1,369 more than as stated in the report. During the year under review we sold 20,850 shares in the Emba Caspian Oil Co., and by this realisation and the receipt of a payment of £1,484 from the liquidator of the Canadian Agency, the securities' account outstanding was reduced from £25,000 to the figure mentioned in the report, namely, £11,284. By the receipt of the money due for the sale of the Santa Gertrudis shares the securities' account to-day stands at £9,915 6s. 8d., which, as far as we can judge, is fully covered by the securities still held by us. Part of these securities originally consisted of shares and debentures in the Alberta and Southern Alberta Land Companies. These companies were during the year amalgamated and re-organised under the name of the Canada Land and Irrigation Co., Ltd., and that is the reason why the name of this company occurs for the first time in the list of securities.

PROFIT AND LOSS ACCOUNT.

With regard to the profit and loss account, there is one new item in the account, namely, £35,000, under the heading of "debenture stock redemption." This is the amount which has to be assigned out of the profits of each year towards the redemption of debentures. If no profit is made in any year, then there is no obligation to repay debentures in that particular year; and it seems possible, I regret to say, that we may be at that position in November next, when the question of redemption in each year has to be decided. With the £35,000 available for redemption during the year ended June 30, 1917, debenture stock for £41,226 was redeemed, the average price of redemption being £85 5s. 10d. per £100 of stock; consequently, the debenture stock now outstanding has been reduced to £208,964.

QUESTION OF EXCESS PROFITS TAX.

With regard to the amount carried forward, namely, £156,687, this is a very considerable figure, and it is only under the best advice obtainable that we have adopted this course. There are exceptional difficulties in the case of this company in arriving at a determination of excess profits tax, mainly on two points:

(1) in agreeing the statutory capital of the company; (2) in arriving at any proper conclusion as to the life of the mine. Any premature step in pressing for a settlement might be seriously prejudicial to the interests of the shareholders, but we hope shortly to be in a position to agree with the inland revenue authorities as to the statutory capital, and, having done so, the next step will be to go before the Board of Referees. Meanwhile, I am in the unfortunate position of not being able to tell you whether the £156,687 belongs to the company, or whether it belongs to the Government, or whether it is partly one and partly the other, and it is for this reason that we have been compelled to keep this large sum of money in suspense.

REVENUE FROM THE MINE.

I now come to the question of the revenue derived from the mine during the year. This matter has been very fully dealt with by Mr. Emery in his report, and the figures in the profit and loss account will show you that, notwithstanding the lower grade of ore produced from the mine, the revenue has not only been maintained, but rather increased, due partly to higher prices realised for copper, namely, £143 per ton, as compared to £112 in the previous year, and partly to an increased production of ore, namely, 140,000 tons, as compared to 111,000 tons in the previous year. The assay value of the ore treated, however, fell from 5.43 per cent. to 3.98 per cent.—a very serious matter for a mine of this description. Under these circumstances, and the increased cost of both labour, transport, and material, the results will, I feel sure, have given you the greatest satisfaction.

SINCE JUNE 30 LAST.

This now brings me to the point at which we must survey the position since June 30 last, and more particularly to the question of ore reserves, and it is a great disappointment to know that, although we have pursued a vigorous policy of development, and have, as a result of that policy, developed considerable reserves of ore—namely, an increase of 60,000 tons, so far as tonnage is concerned—yet the total copper contents of those reserves are only the same as at June 30, 1916, and the grade has fallen to 3.7 per cent. for the proved ore, and for the whole reserves, including possible ore, to 3.5 per cent., excluding Vogelzang ore, which is a negligible quantity. Meanwhile, the price of copper has fallen, the cost of transport to the markets of consumption has further increased, the transport itself has been, and is, very precarious, and smelting charges are higher; and although our revenue up to the end of December last probably exceeded our expenditure by some £25,000, and there is some additional revenue to come in from the ore in transit at June 30 last, it is very doubtful to-day if we are working at a profit.

LIFE OF THE MINE.

Now, on every occasion on which I have had the pleasure of addressing you I have endeavoured to put this question of ore reserves in what seemed to me at the time, and seems to me to-day, its proper light. At times we have been much encouraged by finds of higher grade ore, as well as by the view of Mr. Grattan, one of the great base metal geologists of the world, whom we consulted, that there was no inherent reason why we should not find as rich ore in the lower levels as in the upper levels of the mine. Yet we have got to look at this fact, that ever since the year 1913, although the tonnage of the ore reserves has sometimes shown

considerable increases, the average assay value of that tonnage has shown a constant fall from 10 per cent. in the year 1913 to 3.7 per cent. up to June 30 last. Since the date of the report there has been no improvement in the assay value of the ore, but we are still able to continue development and to hope that there may be a change in that condition. We have, however, got to contemplate the unpleasant fact that the life of the mine—and by that I mean the profitable life of the mine—may be approaching its end.

POLICY OF THE BOARD.

In spite of these disappointments, we are still continuing to work, but are much hampered by want of labour and shipping facilities—conditions which have only become acute since November last. The Board is in continuous communication with the General Manager in South Africa on all these points, which are not easy of solution, because, to some extent, the conditions vary from month to month, and we shall keep the mine in operation as long as we can see our way to do so, because this course holds out the best prospect of finding new and profitable ore supplies with the minimum amount of cost and dislocation. I have purposely put to you what I consider to be an unfavourable view of affairs, because I do not know—in fact, no one knows—in what respect we may expect any betterment of the position. On the other hand, should we be compelled to stop operations altogether, we have large liquid assets, easily realisable, and it might well turn out, after the adjustment of the many outstanding questions, due principally to war taxation, that there will be some considerable fund available for the shareholders after meeting all the company's liabilities. Under these circumstances, it is the policy of the Board to carry on the operations at the mine with a view, if not to profit, at any rate to the opening out of additional ore reserves, and to continue this course so long as we can do so at a reasonable cost; but it is equally our business to avoid frittering away, without any reasonable prospect of success, the very considerable liquid resources which we have accumulated; and we shall do our utmost to carry out this policy in the most economical manner possible, because we think we can in this way best protect the interests of the shareholders. I now move: "That the directors' report together with the balance sheet and accounts for the year ended June 30, 1917, be and are hereby received and adopted."

Mr. R. J. Frecheville, M.Inst.C.E. (director), seconded the motion.

After a number of questions had been answered, the Chairman put the resolution to the meeting, and it was carried unanimously.

The Chairman proposed the re-election of Mr. R. J. Frecheville as a director of the company.

Mr. J. A. Agnew, M.I.M.M. (director), seconded the motion, and it was unanimously agreed to.

Mr. B. Brookman proposed the re-appointment of the auditors, Messrs. Allen, Atfield & Co.

Mr. W. Barker seconded the motion, and it was carried unanimously.

On the motion of Mr. Frederick Walker, a vote of thanks was accorded to the Chairman, directors, and staff at home and abroad, and the proceedings then terminated.

SOUTH AFRICAN MINING SYNDICATE, LTD.

The ordinary general meeting of the South African Mining Syndicate, Ltd., was held on March 22 at Salisbury

House, London Wall, E.C., Mr. R. W. Mitchell presiding.

The secretary (Mr. George Morgan) having read the notice convening the meeting and the report of the auditor, the chairman said: Gentlemen,—Considering the times we are passing through, and the difficulties in getting suitable men to carry on the work in South Africa and also in providing funds to pay for the same, you will, I am sure, agree with me that it was desirable to defer this meeting until the board was able to make a definite pronouncement of the company's policy. Having arranged both the above-mentioned essentials the board now propose to pursue vigorous development, and, as I have with experts been over your gold claims, I have no hesitation in assuring you that the property is one of great promise. As regards your tin property, the information I obtained locally foreshadows excellent results. When last in South Africa, I, in conjunction with experts, studied the possibilities of several mining propositions, and your gold property was far and away the best and has very great potentialities, and I have no hesitation in congratulating the shareholders on possessing such excellent properties. Your tin property comprises about 2,000 acres, located in the recognised tin belt of the Transvaal. This came into the company's possession solely on account of the death of the late owner, and it was entirely through South African business connections that the company was able to secure it. In my opinion, founded on my knowledge of South Africa's tin deposits, it is reasonable to anticipate that the property in question will be the means of making the company a substantial success. Considering that tin is now about £320 per ton, the directors' decision to pay attention first to the tin interest will, I have no doubt, meet with your entire approval.

TIN IN THE TRANSVAAL.

I gather that the English mining investor is unacquainted with the fact that in recent years large tracts of rich tin-bearing country have been discovered in the outside districts of the Transvaal, and, as far as they have been worked, have given excellent results; but, owing to the fact that the principal dealings in these tin shares have taken place in South Africa, the profits—in some cases almost phenomenal—have not been recorded in the minds of British mining investors, and, in order to give you an instance of what has already been accomplished, I would call your attention to the record of Zaaiplaats tin property in the Transvaal, which, while tin was selling at about half the present price, enabled the company owning that property to pay in one year 150 per cent. in dividends, and to pay in seven years dividends exceeding five times its total capital. There undoubtedly exist numerous tin deposits in the Transvaal which will prove to be equally as rich as Zaaiplaats, and the directors have reason for anticipating that this company's property will prove to be one of them. Turning to the balance sheet, you will observe that provision is made for £20,000 working capital and that all the shares in the company, amounting to £75,000, in 5s. shares, are allotted. In case I have omitted any point of interest I invite absent shareholders to communicate with the secretary at the company's offices, 790-792 Salisbury House, London, E.C.2, who will be pleased to elucidate any point I have not made quite clear. I now beg to move: "That the directors' report and statement of accounts, as audited, be and are hereby received, approved and adopted," but before putting that resolution to the vote I shall be pleased to answer to the best of my ability any questions which may be asked.

Mr. F. Perry seconded the motion.

In reply to Mr. Gratton, the Chairman said it had not occurred to the directors to ask shareholders to pay up the liability which still existed on certain of the shares, but to any who would care to pay up the amount he had no doubt facilities would be afforded. There would be no objection to their doing so.

The motion was carried unanimously.

The retiring director (Mr. R. W. W. Hay) having been reappointed auditor, a vote of thanks to the chairman and directors closed the proceedings.

TWEEFONTEIN COLLIERY, LTD.

The eleventh ordinary general meeting of Tweefontein Colliery, Ltd., was held on March 25 at Egypt House, 36 New Broad Street, E.C., Lord Granmore and Browne (chairman of the company) presiding.

The Chairman, in moving the adoption of the report and accounts, said: Gentlemen,—I presume you will take the report as read. The authorised and issued capital of the company remains the same as last year. Sundry creditors, £30,561, show an increase of £6,846. Property account remains the same; plant and machinery is increased by £10,551. Stores show an increase of £4,510. This is due to the continued increase in the cost of stores. Sundry debtors are decreased by £6,024, and of the total appearing in the accounts under this heading £10,967 represents coal sold but not paid for. Cash in London and Johannesburg stands at £30,527. Turning to the profit and loss account, London expenditure is increased by £5,689, income tax and excess profits duty for the years 1916 and 1917 accounting for £5,025 of the increase. The profit on coal winning and dividends from Premier Coal, Ltd., show a decrease of £1,441. Rents are up £445 and interest is reduced by £693, due to our having sold our War Loan and Treasury bills. The credit side of the balance sheet shows a total decrease as compared with last year of £1,695, which must be considered satisfactory when we take all things into consideration. The balance of £76,431 is slightly higher than last year, and to this there fails to be added the sum of £18,189 brought forward, making a total of £44,620. Out of this we have already paid you an interim dividend of 6 per cent. on the ordinary shares and the cumulative dividend of 6 per cent. on the cumulative preference and participating shares, absorbing £8,099, and in our report we are glad again to be able to recommend the payment of a final dividend at the rate of 19 per cent. on the ordinary shares, making a total dividend of 25 per cent., and a further dividend at the rate of 4 per cent. on the cumulative preference and participating shares, making the total dividend on these shares 10 per cent., the maximum to which they are entitled. After payment of these final dividends a balance of £22,120 will remain and be carried forward to the current year's account. The coal sold during 1917 was 444,115 tons, as against 436,898 tons for 1916. Last year I drew your attention to the increased demand for South African coal for bunkering and export. This improvement continued during the year 1917, the figures as compared with the year 1916 being as follows: Capetown, 1917, 336,685 tons, as against 295,505 tons in 1916; Delagoa Bay, 1917, 872,802 tons, as against 746,091 tons in 1916. I am sorry, however, to inform you that since I last had the pleasure of addressing you the South African railways have again raised the railway rate on bunker coal

to Capetown, Durban and Delagoa Bay by a further 3d. a ton, making a total increase in two years of 10s. a ton. The increase does not apply to coal supplied for export. Our contracts for bunkering are made subject to rise or fall of railway rates, and there is reason to fear that the heavy increase in the rates during the last two years may result in a falling off in the demand for bunker coal at South African ports. The Transvaal Coal Owners' Association, of which your company is a member, has been renewed for a period of five years from July 1 next. Taxation, both in this country and also in South Africa, continues to take its toll of us. Notwithstanding this we are glad to have been able, in spite of the heavy increase in cost of labour, stores, and taxation, to maintain our output and dividends at the same rate as heretofore.

Mr. W. E. Lawson Johnston seconded the motion, which was carried unanimously.

THE HUME PIPE CO.

Annual Meeting.

The first annual general meeting of shareholders of the Hume Pipe Co. (South Africa), Ltd., was held at Capetown on April 27, the chairman of directors, Sir Percy Fitzpatrick, M.L.A., presiding. The directors' report submitted showed that the authorised capital consisted of 100,000 shares of £1 each, 30,000 of which are fully paid up, 50,000 issued to the vendor, and 20,000 held in reserve. For the 50,000 fully paid shares issued to the vendor the company acquires (1) cession from Hume Bros' Cement and Iron Company, of Adelaide, Australia, of all patent rights held or applied for or to be applied for by them in all parts of Africa south of or intersected by the Equator; (2) four complete plants (three stationary and one mobile) manufactured in Australia, and delivered f.o.b. Adelaide, for the manufacture of pipes and other articles produced by the Hume process; (3) the results of all preliminary works, investigations, arrangements and contracts done and made prior to the formation of the company. "The advent of the Hume pipe to this country," went on the report, "has aroused considerable interest among engineers and others, and the number of inquiries which have been received from all parts of South Africa warrant the conclusion that there is a large immediate business ahead of the company with a practically unlimited field for future expansion. Up to the present the company has been obliged to defer undertaking considerable orders, as the Germiston plant will, in the first place, be largely occupied in the execution of an order from the Rand Water Board for the manufacture of the water mains to supplement the Eastern Rand water supply, at a cost of approximately £47,000." In moving the adoption of the report, the Chairman said the meeting was a formal one, such as was required by the Act, to take place within six months of the formation of the company. There was nothing new to report in the way of business, but shareholders might wish to know how the assets acquired were being dealt with. When asked to take this matter up by his friend, Mr. Reynolds, he did so in the cause of irrigation, but not before the fullest investigation had been made with regard to the working of the patent in Australia. For this purpose three visits had been paid to that colony, so that they might know what they were undertaking. The patent rights were in order and had the full period to run. A suitable site of 16 acres had been acquired at Germiston, with a railway siding, close to the Victoria Falls Power Station, with plenty of water and dump material, and

they hoped to turn out the first pipes within a month. They had laid out their present works to supply an indefinite region other than the Transvaal, and in the course of time no doubt they would have to establish other centres. However, the site at Germiston was sufficiently large for the amount of plant they were likely to acquire for some considerable time. The second plant on hand was intended to be erected at Maitland, where a site on the railway had been acquired, and as soon as the Germiston plant was in working order, and was turning out the right type of pipe, so soon would the works at Maitland be put in hand. What the directors wanted to see was that the latter plant should be an improvement on that in the Transvaal, which was already an advance on anything in Australia. Their whole layout was with a view to further extension at Germiston, and they also had options on a site at Port Elizabeth, with offers of

sites from other centres. From the word "go" they would be able to multiply plants. When the company started the idea was that one plant would be enough, but it now seemed probable that they would want many more than the four on order.

Sir Percy Fitzpatrick went on to describe the prospects before the company as almost boundless. Before the war, upwards of 300,000 pipes were imported annually; now they had to deal with the accumulation of four years, during which there had been no imports, and with the expansion in irrigation and development by large public bodies, of whom not less than 12 had applied for considerable water schemes. He did not like to make an estimate, but he believed these large requirements would run into seven figures. The £47,000 ordered by the Rand Water Board was the merest trifle, but if they gave satisfaction the ultimate order would be upwards of

£300,000, and they could supply the pipes at prices which even pre-war prices for iron pipes could not knock out. Sir Percy then gave a list of undertakings lately carried out by Mr. Hume in Australia. He had supplied gas mains for Melbourne, and a hydro-electric pipe line in connection with the naval base at Sydney. These pipes had a diameter of 55 inches and stood an exceedingly high pressure, the price paid being £8 10s. per foot. They were turning out linings for wells eight feet in diameter, rolled off on a machine, and many other lines were developed, such as open guttering, tiles, tanks and silos. At present, however, his company would be content with ordinary pipes at standard sizes, as their problem was rather to get the men and machinery to overtake the orders waiting. They had agreements with the cement companies, who promised them all the material they wanted.

New Patents.

696. Bruce Conklin.—Improvements relating to rotary engines, pumps, compressors and the like.
 697. Alfred George Spencer.—Improvements in buffer draw-bearing or other springs and elastic diaphragms.
 698. Alexander Spencer.—Improvements in or relating to buffer coupling apparatus.
 699. Alexander Spencer.—Improvements in central buffing and draw-gear.
 700. Alexander Spencer.—Improvements in packing for vacuum apparatus, including vacuum brake apparatus for railway and like-vehicles.
 701. Charles William Cresswell, Hine.—Improvements in or relating to buffer and other springs constructed with india-rubber.
 702. Herbert Robert Ives.—Improvements in jockeys or rope grips for mechanical haulages and the like.

703. Lionel Nelson.—Improvements in gas producers.
 704. Aage Alfons Jacobsen.—Motor plough of the trailer-plough type.
 705. Niels Christian Nielson.—Improvements in the method of avoiding the formation of rust in tanned iron tanks or vessels.
 706. Arthur Hamilton Beviss-Challnot and Arthur George Johnson.—
 707. Geoffrey de Haviland and George Holt Thomas.—Improvements in means for controlling aeroplanes.
 708. Francis Herbert Harris.—Improvements in the transference of sands from treatment tanks to dumps, dams or other storage sites.
 709. Filippus Fourie Pienaar.—Improvements in or in connection with tube mills and the like.
 710. Edmund Scott Gustave Rees.—Improvements in rotary pumps and turbines for incompressible fluids.
 711. Edmund Scott Gustave Rees.—Improvements in ejectors condensers, and air pumps or compressors.

Send your Indents
TO
FREEMANS (London) LTD.
CANNON STREET HOUSE
LONDON, E.C. 4.

**Buyers for
Importers**
THROUGHOUT
THE WORLD.
Cables: 'Frelonex London.'

Engineers' Tools . . .
Rotary Screens . . .
Grindstones . . .
Conveyors . . .
Pumps . Lamps . . .
etc. . . .
Quotations submitted.

Agricultural Machinery and
 Implements of all kinds,
 Coffee Classifiers, Fans,
 Pulpers, etc.

CASTINGS IN ALL METALS.

**ALL ENGINEERING & HARDWARE
MERCHANTS' REQUIREMENTS.**

FREEMANS produce the original invoice. Ship and insure at lowest rates. All discounts allowed. Reasonable commissions. Correspondence in any language. Our connection amongst manufacturers ensure good delivery and prompt attention to all orders.

**FIRST CLASS
REFERENCES
GIVEN AND
REQUIRED.**

Samples worked to

M. ESPLEY JONES
Merchant in Mining Materials

Sole South African Agent for:—
**SYBRY SEARLES & Co., Ltd., Cannon Steel Works
Sheffield.**

Manufacturers of Mining and High-Speed Steels,
Picks, Hammers, Files, Twist Drills, etc.

RICHARD GARSIDE, Ltd., Manchester,
Manufacturers of Cotton Waste and Sponge Cloths, etc.
Contractors to South African Railways, Witwatersrand Gold
Mines, Collieries, Municipalities, etc.

W. D. HOUGHTON & Co., Ltd., Warrington,
Manufacturers of Wire Ropes of all descriptions.

LARGE STOCKS CARRIED LOCALLY.

9a Commercial Exchange, Main St.,
Phone 1875. P.O. Box 4782. Tel. Add. : "PRAESENS."
JOHANNESBURG.

THOMAS BOLTON & SONS, LTD.

Established 1783.

COPPERSMELTERS & MANUFACTURERS.

BRASS - COPPER - BRONZE

Rods, Tubes, Wire, Plates, Sheets, Strip,
 Copper and Brass Pipes and Tubes,
 Copper Rail Bonds,
 High Conductivity Copper,
 Commutator Bonds.

DIAMOND EMERY WHEEL DRESSERS.

PHOSPHOR BRONZE HIGH TENSILE BRONZE

Various Grades up to 67 tons per sq. in.

WORKS:

MERSEY COPPER WORKS, WIDNES.
 OAKMOOR, NORTH STAFFORDSHIRE.
 FROGHALL COPPER WORKS, STAFFS.
 SUTTON ROLLING MILLS, ST. HELENS.

London Office: 57, BISHOPSGATE
 (W. LEE MATHEWS, London Director).

Telegraphic Address—
 "Wiredrawn, London."

THE
LONDON DIRECTORY

(Published Annually)

ENABLES traders throughout the World to communicate direct with English

MANUFACTURERS & DEALERS

in each class of goods. Besides being a complete commercial guide to London and its suburbs the Directory contains lists of

EXPORT MERCHANTS

with the goods they ship, and the Colonial and Foreign Markets they supply.

PROVINCIAL TRADE NOTICES

of leading Manufacturers, Merchants, etc., in the principal provincial towns and industrial centres of the United Kingdom.

A copy of the current edition will be forwarded, freight paid, on receipt of Postal Order for 25s.

Dealers seeking Agencies can advertise their trade cards for £1, or larger advertisements from £3.

THE LONDON DIRECTORY Co., Ltd.

25, Abchurch Lane, London, E.C.

EVERY CHAIN



The Chain of
EVERY
 Williams'
 "Vulcan" Chain
 Pipe Wrench
 has withstood a
 strain almost to its
 elastic limit. It can
 do it as often as you
 please. If you strain
 it beyond this point
 it will stretch before
 breaking. It is the
 untested chain that
 breaks suddenly un-
 der a partial load.
 Avoid needless risk.

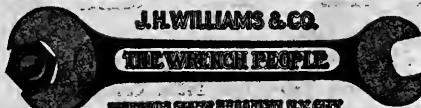
A chain should
 give warning of im-
 pending failure.



ESTED

J.H. WILLIAMS & CO.

THE WRENCH PEOPLE



MANUFACTURERS & IMPORTERS OF

“INDUSTRY AS USUAL.”

LIST OF

Manufacturers & Agents belonging to the British Empire and her Allies.

HERBERT AINSWORTH.

Engineer and Merchant, 304-307 The Corner House, Johannesburg; South African Agent for Green's Patent Fuel Economisers, Canadian Carbide "S" Brand, Allis-Chalmers Mfg. Co., Crane Co., Richard Johnson, Clapham & Morris, Ltd., Kennicott Water Softener Co., Hartlepool Ropery Co., Ltd., Woods' Colliery Plants and Winches, Manhattan Rubber Mfg. Co., Conveying Weigher Co.

ANDREW, RESTIEAUX & CO.

Manufacturers of Solder, Bearing Metals, Printers' Alloys, and all classes of non-ferrous Ingot Material. Proprietors of the Knoxite Brand of Antifriction Metals.—246 Fox Street, Johannesburg, 'Phone 3753, Telegrams "Audesia."

BARTLE & CO., LTD.

Loveday House, Johannesburg. 'Phones 3553-4. Sole Agents for Sanderson Bros. & Newbould, Limited, Sheffield; F. Reddaway & Co., Ltd., Manchester; John Shaw, Ltd., Sheffield; J. W. Roberts, Ltd., Leeds; Cimson & Co., Ltd., Leicester; T. Lister & Co., Ltd., Brighouse; John Davis & Son, Ltd., Derby; The Cincinatti Bickford Tool Co.; The Lodge & Shipley Machine Tool Co.; The Pittsburgh Valve and Fittings Co.; F. Bartle & Sons, Carn Brea; and many other well-known British Manufacturers.

BRITISH GENERAL ELECTRIC CO., LTD.

Corner Loveday and Anderson Streets, Johannesburg. Electrical Plant and Supplies of all descriptions. 'Phones 4242-4243; Telegrams, "Current"; Box 2406. Branches at Cape-town, Durban, Bulawayo, etc.

HUBERT DAVIES & CO., LTD.

Electrical and Mechanical Engineers, for all kinds of Electrical Machinery and Supplies. Johannesburg, Durban, Cape-town and Salisbury (Rhodesia).

FATTI'S S.A. MACARONI FACTORY.

Fatti's Macaroni Factories are the suppliers of the much-appreciated Soup-Macaroni for the Mine Boys. They inform the Mine and Compound Managers that in spite of the present high cost of the flour their price for this healthy and very nourishing food has been kept at the pre-war level, thus making MACARONI the MOST ECONOMICAL food of the present time. For orders and quotation please apply to Box 1139, or 'Phone 962, Johannesburg.—L. Fatti and Co., Ltd.

FRASER & CHALMERS, LTD.

Farrar Buildings, Simmonds Street, Johannesburg; also representing Holman Bros.; T. & W. Smith, Ltd.; Tangye, Ltd.; G. & J. Weir, Ltd.; and many other British Agencies.

HADFIELDS LTD.

(Incorporated in England.)

46-47, Cullinan Buildings. 'Phone 5800, Johannesburg. Cast Steel Gyrating and Jaw Crushers and Crusher Spares, Wheels and Axles, Pedestals, Rollers, Pulleys and General Steel Castings.

ROBERT HUDSON & SONS, LIMITED.

Works: Gildersome Foundry, near Leeds. 83-4, Cullinan Buildings, 'Phone No. 1731. Telegraphic Address: "Raletrax." Manufacturers of all classes of Light Railway Material for Mining and Contractor use. Rails in all weights per yard. Switches and Crossings, Standard Trucks of various capacities kept in stock.

NGERSOELL-RAND CO.

Exploration Building, Johannesburg. Air Compressors, Rock Drills, Hoses, Steel, Pneumatic Tools, Cameron Pumps, Leyner Drill Sharpeners, Davis Calyx Core Drills, Centrifugal Pumps.

PEARSON'S HYCOL, LIMITED.

Manufacturers of Hycol Disinfectant Fluid (guaranteed efficient 18-20) and "Pacolol" Brand of Lysol. Contractors to Union Government. Works: Hull, Yorkshire. S.A. Head Office, 33, Hout Street, Capetown. Branches: Johannesburg, 'Phone 2472, Box 3144; Durban, Box 245.

PHOENIX FOUNDRY.

Iron and Brass Founders, General Engineers and Blacksmiths. Office and Works: Hay Street, Ophirton. P.O. Box 3031, Johannesburg. 'Phone 1641. Sole Agents for Cartynne Steel Castings Co., Glasgow. Stocks of Tappets, Skip Wheels, Heads, etc. Casting Specialties: Pipe Fittings, White Iron Pump Spares and Tube Mill Liners.

REUNERT & LENZ, LTD.

Consolidated Building (3rd Floor), Johannesburg; P.O. Box 92; Telephone No. 3061. Sole Agents for North British Locomotive Co., Ltd.; Leeds Forge Co., Ltd.; Babcock and Wilcox, Ltd.; Belliss & Morcom, Ltd.; Davidson & Co., Ltd.; Frank Pearn and Co., Ltd.; "Atlas Rock Drills"; John Stephens and Son, Ltd.; E. and W. Lucas, Ltd.; Sir Joseph Jonas, Colver & Co., Ltd.; John Spencer & Sons, Ltd.; and many other high-class British Manufacturers.

J. V. STANTON & CO.

Southern Life Buildings, Representing: Phoenix Dynamo Manufacturing Co., Ltd. (Bradford, England). Electrical Plant; Park Royal Engineering Works, Ltd. (London). Switchgear, Instruments, "Rex" Fire Extinguishers; Fleming, Eirby and Goodall, Ltd. (Liveredge, Eng.). Tramway Equipments; Henry Wiggin and Co., Ltd. (Birmingham, Eng.). Resistance materials; Walsall Hardware Manufacturing Co. (Walsall, Eng.). Conduits, etc.; Canadian Porcelain Co. (Hamilton, Canada). Insulators, etc. Mining Material other than Electrical, also stocked.

S. SYKES & CO., LTD.

Southern Life Buildings, Johannesburg. Telephone No. 2190. P.O. Box 2303. Telegrams: "Psyche." Sole Agents for Robey & Co., Ltd., Crosley Bros., Ltd. E. & F. Turner, Ltd., Worthington Pump Co., Ltd., C. A. Parsons & Co., Ltd., Crompton & Co., Ltd., Reyrolle & Co., Ltd., and Sandycroft, Limited.

E. W. TARRY & CO., LTD., Austral Iron Works.

Corner of Anderson and End Streets, Box 1098. 'Phones 149 and 626, Johannesburg. Iron and Brass Founders and General Engineers. Machine Cut Gears in Raw Hide and alloy Metal a speciality, and in Cast Iron up to 18 feet diameter. Sole Manufacturers and Agents for Tregaskis Patent Drill Heating Furnace.

TRANSVAAL GRAPHITE M. & M. CO., LTD.

(W. M. HUDSON, Managing Director.)

Foundry Plumbago. Flake Graphite. Pipe Jointing. "Murrells" Boiler Composition. Graphite Pigment. Electrical Graphite, etc. Offices and Works: 234 Anderson Street, Johannesburg. 'Phone 2560.

WADE & DORMAN, LTD.

Box 2997; Telephone 1460, Johannesburg. Structural Steel Work of all kinds. Large Stocks of Joists, Channels, Angles, Tees, Plates, Chequered Plates, etc. Agents for British Steel Piling Co. Stockyard and Works: 217, Main Street.

WHARTON HOOD & CO., LTD.

Box 6096, Telephone 973, Tel. Address: "Castings." Sole Agents for Jenkins Bros., Ltd., Montreal; Geo. Christie, Ltd., Glasgow; James Walker & Co., Ltd., London; Garlock Packing Co., New York. Offices: Southern Life Buildings, Johannesburg.

C. F. WIENAND.

Commercial Exchange Buildings, Johannesburg; 'Phone 3. Sole Agent for Toledo Steels of all classes; Butterley Iron, Barwell's Bolt, Scott's Ropes, Mine Lubricants, Ltd. All highest quality.

SIXTEEN BUTTERS' FILTER PLANTS

AND SEVEN EXTENSIONS TO FORMER PLANTS

now operating on the Rand and giving complete satisfaction to everyone concerned.

Full particulars and operating data will be given on application.

50 lb. samples of slime will be tested free of charge to determine its filtering capacity. Estimates for plants, accompanied by complete general arrangement drawing, supplied on short notice. Write us for pamphlet regarding our process.

CHAS. BUTTERS & CO., LTD.

(INCORPORATED IN ENGLAND)

187, Exploration Building, Johannesburg.

P.O. Box 2652.

Telephone 3701.

Cable Address: "HUBNERITE."

FRASER & CHALMERS, LTD., AGENTS FOR SOUTH AFRICA.



DICK'S BELTING.

No Belt is a —

DICK'S ORIGINAL BALATA

unless stamped every few feet with the Trade Mark.

FACTORIES: GLASGOW, SCOTLAND.

PASSAIC, NEW JERSEY, U.S.A.

SOLE AGENT —

S. P. Ruthven,

3, WINCHESTER HOUSE,

JOHANNESBURG.

PHONE 80.

TELEGRAM: "BELTING."

EXPLOSIVES

For Mining, Quarrying, Farming, Railway and Irrigation Work.
"Permitted" Explosives for Coal Mines,

AGENTS:



LONDON.—CAPE EXPLOSIVES WORKS, LTD., 15, St. Swithin's Lane, E.C.

TRANSVAAL.—REUNERT & LENZ, LTD
Box 92, Johannesburg, and Box 427, Salisbury.

RHODESIA.—L. R. FORBES, Box 688, Bulawayo, and Box 427, Salisbury.

KIMBERLEY.—CAPE EXPLOSIVES WORKS LTD., & E. W. TARRY & CO., LTD.

AUSTRALASIA.—KIRK, O'BRIEN, Collins House, Collins Street, MELBOURNE.

MANUFACTURERS of

Blasting Gelatin, Gelignite,
Ligdyn Dynamites.
'Cape Brand' Subsoil Dynamite
Fuse Igniters.

Bi-Sulphate of Soda.
Sulphuric and Nitric Acids.
Sulphur & Sulphur Lime Solution
Pure Glycerine.

Copper Sulphate.

Fuse, Detonators and Electric Blasting Accessories Stocked.
Nitrate of Soda.

CAPE EXPLOSIVES WORKS

— LIMITED, —

P.O. DYNAMITE FACTORY,
SOMERSET WEST, CAPE PROVINCE.

ASER &
mers, Ltd.
RAR BUILDINGS,
Simmonds Street,
HANNESBURG.



Fraser &
Chalmers, Ltd.
P.O. Box 619.
Telephone:
Private Exchange.
Telegrams: "VANNER."
JOHANNESBURG.

COL. XXVII., PART II., NO. 1389.] JOHANNESBURG, TRANSVAAL, SATURDAY, MAY 11, 1918. [WEEKLY, PRICE 6D.

WE HAVE THE

B. F. GOODRICH COY.'S
"LONGLIFE"
CONVEYOR
BELTS

Running on all the principal mines of the Rand,
many THOUSANDS OF FEET being in constant
operation and giving the sort of service that
counts, and brings us repeat orders.

BEST IN THE LONG RUN

Sole Agents :

FRASER & CHALMERS, Ltd.

(INCORPORATED IN ENGLAND).

Farrar Buildings, Simmonds St., Johannesburg.

Box 619.

And at BULAWAYO and SALISBURY.

'Phones 2605 to 2610.

Printed for the South African Mining Journal Syndicate, Limited, by the Argus Printing and Publishing Company, Limited, Lower President Street, and Published by the Syndicate. Obtainable at all Branches and Agencies of the Central News Agency, Limited, and all News Agents and Railway Bookstalls throughout South Africa.